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ABSTRACT

This is the first report from a 3-year evaluation of Part B of the Eisenhower Professional Development Program, the U.S. Department of Education's single largest investment dedicated to developing teachers' knowledge and skills. The report presents 10 emerging themes about the program resulting from exploratory case studies of 6 school districts conducted in 1997. The case studies involved onsite visits, interviews, and focus groups with key players. Information is presented in six sections: (1) Introduction; (2) Types of Professional Development Activities Supported with Eisenhower Funds and their Connection to High-Quality Professional Development; (3) The Relationship Between the Eisenhower Program and Other Education Programs; (4) The Participation of Teachers of Diverse Student Populations; (5) Planning and Tracking Progress of the Eisenhower Program and the Role of Performance Indicators; and (6) Conclusions and the Implications for Subsequent Phases of this Evaluation. Results suggest that district officials are aware of some key elements of high quality professional development, including the importance of aligning professional development with high standards. They are moving toward funding more activities that fit current conceptions of high quality. However, reports from district administrators, teachers, and professional developers raise many questions that must be addressed. Three appendixes offer Eisenhower Program performance indicators; an overview of the evaluation of the Eisenhower Program; and selection criteria for sites and focus group participants. (Contains 47 references.) (SM)

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The Eisenhower Professional Development Program: Emerging Themes From Six Districts

1998

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EXECUTIVE SUMMARY

Good teaching is central to the nation's efforts to prepare children for the challenges of the 21st century. Nevertheless, many teachers are not prepared to help children understand complex subject matter. For this reason, local, state, and federal efforts to foster high standards for education will founder without support for the ongoing professional development of teachers.

The Eisenhower Professional Development Program (Title II of the Elementary and Secondary Education Act, as amended by the Improving America's Schools Act of 1994) is the U.S. Department of Education's single largest investment dedicated solely to developing teachers' knowledge and skills. Part B of the program provides funds to all states, most of the nation's school districts, selected institutions of higher education, and other non-profit organizations. These funds support opportunities for teachers to upgrade their skills and acquire the knowledge they need to help all children meet the challenges of rigorous standards.

The 1994 reauthorization of the Eisenhower program placed special emphasis upon the following:

- Supporting high-quality professional development that emphasizes in-depth understanding of subject matter and opportunities for teachers to reflect upon their teaching;
- Integrating program-funded activities with ongoing education reform efforts;
- Including teachers of students from diverse populations (particularly teachers in Title I schools) in Eisenhower-funded activities; and
- Purposefully planning and tracking the program's progress, supported by performance indicators.

This is the first report from a three-year evaluation of Part B of the Eisenhower program. The report presents "emerging themes" about the program from exploratory case studies of six school districts, conducted in spring 1997. These themes will be explored further in future phases of the evaluation.

Emerging Themes from the Six Exploratory Case Studies

> ***Emerging Theme #1:*** **Across the six case study sites, the Eisenhower Professional Development Program supported a wide variety of activities, although that range was much broader at some sites than at others.**

The legislation authorizing the Eisenhower program allows districts to support a broad range of professional development activities with Eisenhower funds. In keeping with the legislation and the diversity of professional development itself, we found that the

Eisenhower program supported a wide range of professional development activities. These activities included not only traditional forms of professional development, such as workshops, institutes, conferences, and university courses, but also activities that provide other kinds of learning experiences for teachers, such as teacher study groups, coaching and mentoring, and immersion activities.

A wide range of Eisenhower-funded activities, however, was apparent only in some of the case districts. One consortium of very small school districts, for example, used Eisenhower funds solely to support teachers' attendance at statewide conferences. The range of activities available to teachers in a district seemed to depend on a number of factors, including the total amount of funds (Eisenhower and otherwise) available for professional development; district administrators' ideas about what professional development should be and the kinds of activities necessary to meet district needs; and geographical location and proximity to potential professional development opportunities.

> ***Emerging Theme #2:*** **In some case sites, Eisenhower-funded activities were designed to emphasize several elements of high-quality professional development. In these sites, we found activities that emphasized: (1) providing more sustained, intensive professional development; (2) using teachers as leaders of professional development activities; and (3) promoting alignment with high state or district standards.**

Recent research on professional development has suggested that high-quality professional development embodies a number of features:

- A vision of effective student learning and teaching that emphasizes high levels of learning for all students;
- An emphasis upon content that provides teachers with a deep and thorough knowledge of the disciplines they teach;
- Approaches that provide teachers with the time and ongoing opportunities necessary to learn, practice, and reflect upon their new knowledge;
- Expanded roles for teachers, including a variety of leadership roles;
- Links to other education initiatives; and
- Accountability for results of professional development.

In the six case districts, Eisenhower program coordinators were aware of several of these features of high-quality professional development and were using them as a basis for designing Eisenhower-supported activities. In particular, Eisenhower directors and teachers in the case districts most often expressed their belief that professional development in their districts reflected: an emphasis on sustained, intensive professional development activities that provide teachers with deeper knowledge of their disciplines, and ongoing opportunities to learn, practice, and reflect on their new knowledge; the use of teachers as leaders of professional development; and the alignment of professional development activities with

state or district standards. In describing Eisenhower-supported activities, Eisenhower coordinators and teachers we interviewed tended not to emphasize other features of high-quality professional development.

> ***Emerging Theme #3:*** **The Eisenhower program was focused largely upon mathematics and science in our case study sites. The program's relationship to other reform efforts and programs was essentially to support the mathematics and science components of existing reform or professional development approaches.**

From the program's inception in 1984 until its 1994 reauthorization, the Eisenhower program was focused entirely upon providing professional development for teachers of mathematics and science. In 1994, Congress for the first time expanded the program to allow a portion of its funds to be spent on providing professional development in other subject areas. The first $250 million of appropriated funds must be used to support professional development in mathematics and science. If the appropriation exceeds that amount, any additional funds may be used to support professional development in other subject areas. In addition, states and districts may apply for waivers that allow them to use more of their funds in subject areas outside of mathematics and science.

Only one of our six case sites had directed a very small proportion of its Eisenhower funds toward subjects other than mathematics and science; this site was located in a state that had received a waiver allowing such use of Eisenhower funds.

The continuing emphasis on mathematics and science in our sites seemed to result from several factors. First, because of the program's historical focus on mathematics and science, the administrators in charge at the district office frequently were specialists in mathematics and science; their experience and expertise contributed to decisions to retain Eisenhower funds for those subjects. Second, in the absence of a waiver, the amount of Eisenhower funds available to support professional development in other subject areas was quite small (in the 1996-97 school year, approximately 14.7 percent of a district's Eisenhower grant could go toward other subject areas). The amount was too small, administrators felt, to have an impact. Third, in some districts, Eisenhower-funded activities had become intertwined with local math and science reform efforts, and a strong constituency had developed to support the use of Eisenhower funds for mathematics and science. Finally, Eisenhower funds provided a reliable resource for professional development in mathematics and science, whereas, according to some Eisenhower coordinators, other professional development resources often emphasized reading and language arts.

> ***Emerging Theme #4:*** **The Eisenhower program's connection with other reform and professional development efforts took different forms across districts, in large part because reforms, themselves, varied significantly across districts and states.**

As intended by Congress, the Eisenhower program was closely coordinated with other state and local reform and professional development efforts. For example, in one

district, professional development generally took the form of training teacher leaders who would ultimately work with other teachers to implement state curriculum frameworks. In this district, the Eisenhower program supported training for teacher leaders in mathematics. Eisenhower funds paid for teacher stipends and for substitutes to allow teachers to participate in weekend seminars and workshops, work groups for planning and developing products, such as assessment tools, and building-level support efforts. Another district had a more multifaceted approach to professional development in support of the state's mathematics and science reform efforts. This approach involved: a mentor program for first-year teachers, training of teacher leaders in all subject areas for every elementary school, courses through the district's Academy, and the purchase of materials and payment of conference fees. The Eisenhower program was a funding source for all of these activities when they focused on mathematics and science.

Because state and local reform and professional development efforts vary, the ways in which the Eisenhower program supported those reforms also varied across the six case districts. The law's flexibility in the use of Eisenhower funds allowed program-funded activities to play different roles in relationship to reform and professional development efforts in the six districts. From the perspective of Eisenhower coordinators in our case districts, this flexibility is one of the great strengths of the Eisenhower program.

> ***Emerging Theme #5:*** **The reliability of Eisenhower funding, as well as the program's wide range of allowable activities, supported districts' ability to engage in long-term planning, and it allowed districts to leverage other funds for professional development.**

Eisenhower coordinators at our case districts thought of Eisenhower funds as a steady source that they could use to support professional development. Although Eisenhower funds ranged from approximately 15 to 25 percent of the six districts' overall professional development budgets, the reliability of the funds from year to year allowed the program to be central to districts' planning for professional development.

In at least two of the districts, Eisenhower funds were used to leverage other funds to support comprehensive reform. Administrators in these districts wrote grant proposals to private foundations, for instance, which detailed how Eisenhower funds would support one part of the proposed initiative and how private grant money would work to fill other holes. In other districts, although administrators did not leverage Eisenhower funds so extensively, Eisenhower coordinators and professional development directors reported that they planned their budgets by building upon the base provided by the Eisenhower program.

> ***Emerging Theme #6:*** **There was little direct connection between the Eisenhower program and Title I, Part A, although in one district de facto coordination existed among professional development activities funded by the two programs.**

Despite the 1994 reauthorizing legislation's emphasis on addressing the needs of teachers in schools receiving Title I funds (low performing schools with a high proportion of children in poverty), activities funded by the two programs appeared to be totally separate. In several districts, Eisenhower and Title I coordinators said they did not work closely with one another, and they had not increased their collaboration since the 1994 changes to the

program. The closest connection between the two programs was in one district, where both programs were managed by the division in charge of professional development. In this district, the activities of both Title I and Title II were shaped by the district's approach to professional development, so that the programs' activities were coordinated "de facto." However, such coordination was the exception rather than the rule among our six case districts. The absence of a connection between the Eisenhower program and Title I, Part A in most of the case districts was in sharp contrast to the close integration of the Eisenhower program with state and local reform and professional development efforts.

> ***Emerging Theme #7:*** **The six case districts made Eisenhower-funded activities available to teachers of students from diverse populations on the same basis as such activities were made available to all teachers. No special targeting of professional development to particular groups of teachers took place in the six case districts.**

The Eisenhower legislation encourages professional development of teachers who work with diverse student populations, and requires that Eisenhower-funded activities include teachers in Title I, Part A-funded schools. In several of the case districts, Eisenhower coordinators reported that all teachers had equal access to Eisenhower-supported activities; in the large, urban districts, Eisenhower coordinators asserted that teachers in schools with large numbers of students from diverse populations participated in professional development activities at the same rates as other teachers. Therefore, the coordinators in our case districts felt that no special targeting was needed to foster participation. In fact, none of the six case districts targeted Eisenhower-supported activities specifically to teachers who worked with students from diverse backgrounds.

The case districts did, however, take a few steps to target professional development in other ways. Some districts targeted activities for teachers new to a grade level, to a district, or to the use of a new curriculum unit.

> ***Emerging Theme #8:*** **Teachers came to participate in Eisenhower-supported activities in a variety of ways, including volunteering, being selected by their principals, and attending mandatory activities.**

The ways in which teachers selected or were selected for professional development varied across the six case districts. The three most common ways were volunteering, being selected by their principals, and attending required activities.

These different approaches may reveal a tension between two goals of the Eisenhower program. On the one hand, the law emphasizes that teachers should be involved in planning professional development, and the tenets of high-quality professional development emphasize a match between teachers' professional development needs and the activities they attend. On the other hand, the law emphasizes that professional development should be designed to achieve some school- and district-level goals. If teachers' individual needs for deepening their own subject knowledge, or learning new skills, are not compatible with school and district goals, these two emphases may, at times, be in tension with each other.

Emerging Theme #9: **The six case study districts had not established comprehensive, outcomes-based planning and evaluation processes grounded in performance indicators.**

All of the six case study districts conducted needs assessments in order to plan Eisenhower-funded activities, and districts also evaluated their professional development activities. However, the process often was not directly linked to program goals and objectives. While some districts used student performance data to drive their assessment of teacher needs for professional development, in other districts, a needs assessment consisted of an informal conversation among selected district staff, teachers, and principals. Eisenhower coordinators also described their evaluation efforts as quite rudimentary, generally consisting of questionnaires asking teachers about the usefulness of the professional development activities in which they participated. Extensive evaluations occurred in two districts, and included observations of teacher classroom practice, as well as surveys of teachers.

Although districts engaged in some needs assessment and evaluation activities, they did not use performance indicators to frame their needs assessment or evaluations of progress. None of the six districts had developed performance indicators, as required by the 1994 legislation. In fact, only one of the Eisenhower coordinators in the six case districts actually knew of the requirement. Other Eisenhower coordinators were unaware of the requirement, but at least one said, "It sounds like a good idea."

Emerging Theme #10: **Schools were involved in ongoing planning and evaluation efforts in some of the case districts. However, Eisenhower coordinators had difficulty interpreting the 1994 reauthorization requirement that Eisenhower-funded activities be determined by school-level staff.**

The 1994 reauthorizing legislation and literature regarding high-quality professional development both promote professional development that is planned by teachers and other school-level staff and, whenever possible, occurs at the school site. Schools in the six case districts were involved in planning and evaluating professional development in different ways. Some of the districts required schools to conduct needs assessments at the school level. One district required that schools maintain a portfolio, which encouraged staff to think purposefully about professional development needs, and to evaluate professional development activities.

Although some districts involved schools in planning professional development, Eisenhower coordinators were uncertain about exactly how to interpret the legislative provision that the use of 80 percent of Eisenhower funds be "determined by" teachers and school staff, and "to the extent practicable" occur at the school site. We found as many interpretations of this provision as we had sites. In one site, for instance, all teachers in the district were polled regarding their preferences, and the district shaped its Eisenhower-funded activities accordingly. In another site, principals selected professional development activities that they believed would benefit teachers in their schools. At still another site, teachers were heavily involved in planning professional development, although very little of this involvement occurred at the schools, themselves. These varied interpretations, as well as

the confusion expressed by the Eisenhower coordinators, revealed a fundamental ambiguity in this provision.

Building on the Emerging Themes of This Report

The 1994 reauthorization of the Eisenhower Professional Development Program instituted a broad range of changes intended to support school reform efforts linked to high standards. Our exploratory case studies, conducted in six school districts, paint an initial but incomplete picture of the law's implementation. Yet, several themes do emerge from this exploratory work, and activities and practices in the six case districts appeared to be more consistent with some new directions in the law than with others. Far more work is needed before we reach firm conclusions about the Eisenhower program.

The emerging themes gleaned from our six exploratory case studies have raised a set of intriguing issues that we will examine in subsequent activities of this evaluation. The remainder of this evaluation will paint a nationally representative and more in-depth picture of the Eisenhower program, built upon:

- ***A National Profile*** of the Eisenhower program based upon surveys of school districts, institutions of higher education, and teachers who have participated in Eisenhower-supported activities.

- ***In-Depth Case Studies*** of districts and schools in five states that will provide detailed qualitative data on the role played by the Eisenhower program within the context of other education reforms.

- ***A Longitudinal Study of Teacher Change***, conducted within the in-depth case studies, which will survey teachers in 30 schools at three points in time during a two-year period. This component of the evaluation also will include interviews with teachers and professional development providers, as well as observations of classroom teaching and professional development activities.

Using the wealth of information to be collected for this evaluation, future reports from this evaluation in fall 1998 and fall 1999 will provide policy makers with a comprehensive picture of the Eisenhower program—how it operates and its effects on teacher practice.

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I. INTRODUCTION

In February 1997, the U.S. Department of Education (ED) commissioned a three-year evaluation of Part B of the Eisenhower Professional Development Program, Title II of the Elementary and Secondary Education Act (ESEA), as amended by the Improving America's Schools Act (IASA). ED's largest, single investment dedicated specifically to the development of teachers' knowledge and skills, the program[1] provides funds to all states, most of the nation's school districts, selected institutions of higher education, and other non-profit organizations. It explicitly intends to assist teachers in upgrading their skills and in acquiring knowledge they need to help all children meet the challenges of rigorous state and local standards. The Fiscal Year 1997 budget appropriated $310 million for the Eisenhower program.

The program's evaluation is designed to:

- ***Describe the Eisenhower program and how it has changed since its last reauthorization in 1994***. The last reauthorization of the program instituted a number of far-reaching changes that ED wants to assess.

- ***Provide information related to performance indicators that ED developed for the program in response to requirements of the Government Performance and Results Act (GPRA)***. GPRA requires ED to determine the program's performance in relation to its goals and objectives.

- ***Understand the program's effectiveness by describing teachers' professional development experiences and how they affect practice***. ED is interested in obtaining a deeper understanding of how activities funded by the Eisenhower program contribute to teacher practice and, ultimately, to student outcomes.

This report describes the findings from exploratory studies of six school districts conducted during the first six months of the evaluation. Based upon work done in these districts, we describe: the types of professional development activities supported with Eisenhower funds; the relationship between the Eisenhower program, systemic reform, and other professional development efforts; the ways in which teachers come to participate in Eisenhower-supported professional development activities; and districts' practices in planning, evaluating, and developing performance indicators for the Eisenhower program.

Moving Education to High Standards Requires Support for Professional Development

Sparked by debates regarding our nation's competitiveness in an increasingly global economy, the nation has been concerned for some time with the academic achievement of American students. Their poor showing in comparison with students in other industrialized

[1] Throughout this report, when we refer to the Eisenhower program, we are referring to Part B, State and Local Activities. This evaluation does not focus on Part A, federal Activities.

nations is another concern. The publication of *A Nation at Risk* raised a warning cry in 1983, echoed more recently in reports of inadequate performance by American students on nationwide examinations (the *National Assessment of Educational Progress*) and on international examinations (portions of the *Third International Math and Science Survey* and its predecessors). Responding to these concerns, policy makers and the public have identified the strengthening of the education system as a top priority.

Policy makers in the mid-1980s responded to concerns about the quality of the educational system with mandates for increased graduation requirements, accountability assessment systems, and more rigorous teacher certification standards. Reforms to America's education system in those years were virtually all "top down" — changes were mandated at the state level, and districts, schools, and teachers were expected to comply (Finn & Rebarber 1992; Gibboney 1994; Tyack & Cuban 1995).

By the end of the 1980s, it was becoming apparent that changes from above would not be enough. federal and state governments can establish goals for schools and provide support for achieving such goals. The changes required to improve student learning, however, must take place in the classroom. This realization has heightened the country's awareness of the importance of teachers' professional development. While not neglecting the important role played by federal and state governments, the current wisdom emphasizes that *systemic reform* requires action at all levels of the education system (Goertz, Floden, & O'Day, 1996; Kahle, 1997; Lee, 1997; Loucks-Horsley & National Research Council, 1997; Smith & O'Day, 1991; Webb, 1997a, 1997b).

Federal, state, and local governments have taken steps to increase children's achievement in school. Many states currently are developing or recently have adopted rigorous standards for subject area content, as well as student performance standards, which describe the breadth and depth at which students should master that content (American Federation of Teachers, n.d.; Blank & Pechman, 1995; National Education Goals Panel, 1995; Porter, Archbald, & Tyree, 1991; Porter, Smithson, & Osthoff, 1994). The federal government, too, has moved to support states in their development of content and student performance standards. The *Goals 2000: Educate America Act*, enacted in 1994, provides grants to states to support systemic reform initiatives, and the *Improving America's Schools Act* reauthorized ED programs that support elementary and secondary education and targeted them to better support systemic reform. The National Science Foundation (NSF) also has invested heavily in supporting systemic education reform initiatives in mathematics and science. The NSF, in fact, has supported such initiatives in states, urban and rural areas, and school districts.[2]

[2] The National Science Foundation sponsors four systemic initiatives: Statewide Systemic Initiatives, concerned with state-level change; Urban Systemic Initiatives, for identified urban areas meeting minimum size requirements; Rural Systemic Initiatives, intended to ensure rural areas access to the technology and other educational reform efforts of more populous areas; and Local Systemic Change (formerly Local Systemic Initiatives), concerned primarily with teacher inservice training and development. NSF's systemic initiatives are generally funded in five-year increments, with the average award for an SSI grant approximately $5 million per year and for a USI grant approximately $3 million per year.

It is clear that, if children are to achieve at levels demanded by the high standards adopted by states and districts, teachers will have to help them do so. Teachers are thus necessarily at the center of reform, for it is teachers who must carry out the demands of that reform in the classroom. National, state, and local efforts to improve education intend a fundamental shift in what students learn and how they are taught. None of these reforms will succeed without good teachers who are immersed in their subjects and who know how to foster both basic skills and advanced thinking and problem solving among their students (Brophy & Good, 1986; Good & Brophy, 1997; National Commission on Teaching and America's Future, 1996).

In short, the central elements of systemic reform—standards, curriculum frameworks, and new approaches to assessment aligned to those standards—generate new expectations for teachers' classroom behaviors and teacher-student relationships, as well as for student performance (Bybee, 1993; National Council for Teachers of Mathematics, 1991; National Research Council, 1996; Webb & Romberg, 1994).

While they generally support high standards, many teachers are ill prepared to implement teaching practices based upon higher standards (Cohen, 1990; Elmore & Consortium for Policy Research in Education, 1996; Elmore, Peterson, & McCarthy, 1996; Grant, Peterson, & Shojgreen-Downer, 1996; Sizer, 1992; Muncey & McQuillan, 1996). Teachers often are not aware that their own teaching practices are not consistent with what they consider high standards, or that they may not have received enough preparation. Many teachers learned to teach using a paradigm of teaching and learning that focuses heavily on memorizing facts, without also emphasizing deeper understanding (Cohen, McLaughlin, & Talbert, 1993; Darling-Hammond & McLaughlin, 1995; Good & Brophy, 1997; Porter & Brophy, 1988). In order to help students absorb more complex knowledge and skills, many teachers must learn those skills themselves.

The extent of teacher learning that must take place is all the more substantial in light of the many teachers who teach outside of their areas of specialization (Blank & Pechman, 1995; National Commission on Teaching and America's Future, 1996). Those teachers must master subject matter content that is often unfamiliar; and they must be prepared to teach such subject matter to students, often with only a short time to learn it before they enter the classroom.

In *Goals 2000*, the federal government has expressly recognized both the crucial role played by teachers in achieving the goals of education reform and the necessity that teachers upgrade their skills and knowledge. Specifically, Goal 4 of the act states:

> By the year 2000, the Nation's teaching force will have access to programs for the continued improvement of their professional skills and the opportunity to acquire the knowledge and skills needed to instruct and prepare all American students for the next century.

The Eisenhower Professional Development Program is an important component of the federal government's efforts to realize this goal.

The New Eisenhower Professional Development Program

First established in 1984, and reauthorized as Title II of the Elementary and Secondary Education Act, as amended by the Improving America's Schools Act of 1994, the Eisenhower Professional Development Program (EPDP) is a central feature of the Department of Education's efforts to improve the knowledge and skills of the nation's teaching force. Like its predecessor, the Eisenhower Mathematics and Science Education Program, the reauthorized EPDP focuses upon the professional development of mathematics and science teachers. The legislation, however, allows states and districts to use funds in excess of $250 million to provide professional development to teachers in *other subject areas*. The EPDP provides funds to State Education Agencies (SEAs) and State Agencies for Higher Education (SAHEs) to support professional development to ensure "that all teachers will provide challenging learning experiences in the core academic subjects for their students" (Section 2001(2)).

In fiscal year 1997, Part B of the program, State and Local Activities, gave the 50 states, the District of Columbia, Puerto Rico, the Bureau of Indian Affairs (BIA), and the outlying areas $310 million to support "sustained and intensive high-quality professional development" (Section 2001(2)). Allocated funds are distributed to states according to a formula that weights equally the number of children in the state between the ages of 5 and 17 and the state's allocation under Title I, Part A of the Elementary and Secondary Education Act.[3]

Eighty-four percent of allocated Title II, Part B funds are distributed to SEAs, with the remaining 16 percent allocated to SAHEs. At least 90 percent of SEA allocations then flow through to local education agencies (LEAs), based upon the same formula (equal weights to the school-aged population and the LEA's Title I, Part A allocation); up to 5 percent of the SEA's Title II grant may be used for program administration, and another 5 percent may be used to support professional development activities provided at the state level. LEAs that receive Eisenhower grants under $10,000 are required to form consortia with other such LEAs, unless the SEA waives the requirement (Section 2204(b)). SAHEs distribute at least 95 percent of their Eisenhower allocations by competitive grants or contracts to institutions of higher education (IHEs) or non-profit organizations (NPOs) that provide professional development to teachers or future teachers.

In its 1994 reauthorization of the program, the U.S. Congress explicitly acknowledged the substantial learning that teachers must undertake in order to foster meaningful student learning. The reauthorized EPDP is intended to fund professional development designed to improve teacher practice, and, ultimately, student performance.

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[3] Title I of the Elementary and Secondary Education Act, as amended by the Improving America's Schools Act, is the federal government's largest investment in K-12 education. In FY 1997, Part A of the program, the local education agency grants program, was appropriated at $6.27 billion, most of which is distributed by formula, based on the number of children who live in poverty, first to states and then to districts. Established in 1965 as one of the cornerstones of President Johnson's War on Poverty, Title I funds educational services for children attending high-poverty schools. With its 1994 reauthorization of the program, Congress made clear its intention that services provided under Title I be linked to high state and local standards.

Specifically, Congress stipulated that local Eisenhower plans be designed in ways that would be likely to have an effect on teacher practice and "to have a positive and lasting impact on the student's performance in the classroom" (Section 2208(d)(1)(E)). Furthermore, the reauthorized EPDP embodied policy makers' intention that the program support systemic education reform and deeper learning among teachers. The law embodies a number of strategies to achieve these ultimate goals. Those strategies frame our evaluation of the Title II program.

Activities supported by the EPDP should embody what is known about high quality professional development. Both the IASA legislation and the program guidance published by the Department of Education emphasize that the EPDP should fund professional development that is sustained, intensive, ongoing, and of high quality. Such professional development should reflect recent research on teaching and learning, and should provide teachers and other school staff with the knowledge and skills necessary to provide all students with the opportunity to meet challenging standards (Section 2002(2)). These provisions reflect the Congress' intention of encouraging the types of professional development activities that are most likely to result in improved outcomes for teachers and students. Further, the provisions are reflected in performance indicators for the Eisenhower program, which fulfill one of ED's requirements under GPRA.[4]

Much research and development work has focused on what effective professional development for teachers "looks" like. Traditional approaches to professional development do not appear to be sufficient to foster the types of learning that would fundamentally alter what teachers teach or how they teach it. For many of the nation's teachers, professional development can be isolated from their teaching practice and characterized by fragmented, "one-shot" workshops at which teachers listen passively to "experts" and learn about topics that are not essential to teaching (National Foundation for the Improvement of Education, 1996). On the other hand, teachers sometimes value such workshops because they increase their awareness or rejuvenate their interest (Knapp, Zucker, Adelman, & St. John, 1991).

Other forms of professional development appear, however, to have a stronger impact on teaching practice (Darling-Hammond, 1995; Hargreaves & Fullan, 1992; Little, 1993; Richardson, 1994; Sparks & Loucks-Horsley, 1989; Stiles, Loucks-Horsley, & Hewson, 1996). These forms of professional development often are more consistent with the complex nature of teaching in a climate of educational reform. Compared to short workshops, these forms of professional development focus in greater depth upon the content that teachers must master. They also are longer in duration, allow teachers an opportunity to practice and reflect upon their teaching, and are more embedded in the ongoing work of the school.

The EPDP should be integrated with ongoing education reform efforts. An emphasis on integration with other programs and reform efforts is apparent throughout the law; and it is reflected in aspects of the program guidance and performance indicators. The reauthorized ESEA requires that EPDP-funded activities be aligned with challenging state and local standards. That alignment, in turn, should be coordinated with education reform

[4] GPRA requires ED to establish annual, quantifiable performance goals and indicators for ED programs as part of a strategic planning process. Future reports from this evaluation will address specifically the program's performance in relation to these indicators.

and professional development efforts funded by federal, state, and local governments and other public, private, and nonprofit organizations and associations. For example, the law requires coordination between the Eisenhower program and other ED programs that fund professional development (such as Title I, Part A of ESEA and the Individuals with Disabilities Education Act (IDEA)), as well as with professional development efforts run by other federal agencies (such as the National Science Foundation) (Section 2205(c) and Section 2208(d)(1)(H)).

The legislation's planning requirements also emphasize coordination between program-funded activities and other activities. Based on local needs assessments, local education agencies must develop plans for professional development. Those plans, in turn, must describe how Eisenhower-funded LEA activities will be coordinated, as appropriate, with Eisenhower-funded IHE activities, as well as with: similar state and local activities; Title I, Part A and other ED programs; funds from other federal agencies; and resources from business, industry, and public and private nonprofit organizations (Section 2208(d)(1)(H))[5].

Integration of the Eisenhower program with other funding sources for professional development also may be fostered by certain administrative provisions outlined in the authorizing legislation. The legislation requires, for example, cost sharing between EPDP and other funding sources. Every local education agency is required to provide "not less than 33 percent" of the cost of the activities assisted under this part (Section 2209(a)).

A final example of the law's emphasis on integration with ongoing reform efforts is the expansion of the program to core subject areas beyond mathematics and science. There are two ways that Eisenhower funds can be used to support professional development in other subject areas. First, when the appropriation for the program exceeds $250 million, the additional funds can be used to provide professional development in core subject areas other than mathematics and science. Second, the ESEA legislation allows states and districts to apply to the federal government for waivers that allow them to devote larger percentages of their EPDP grants to other core subject areas[6]. Together, these provisions reflect Congress' recognition that educational reform efforts are occurring across the curriculum, and they allow states and localities the flexibility to tailor the use of EPDP funds to their education reform priorities.

The EPDP should ensure that professional development includes teachers of students from diverse populations. There is a strong emphasis in systemic reform efforts, as well as in federal programs, on increasing access to a high quality education for all students, especially those students who have traditionally not been served well by the educational system. Congress is clear that the EPDP improve the skills of teachers who serve students placed at risk. The 1994 legislation explicitly states that state applications and local plans should

[5] Requirements for including this information in the LEA's application to the state for funds may differ, depending on whether the LEA submits a Title II-program-specific application or a "consolidated application" for all ESEA programs. These two types of applications are described in footnote 7, below.
[6] States and districts may apply to the federal government for waivers from most ESEA provisions, including this one.

> take into account the need for greater access to, and participation in, such disciplines [all core academic subjects, but especially mathematics and science] by students from historically underrepresented groups, including females, minorities, individuals with limited English proficiency, the economically disadvantaged, and individuals with disabilities, by incorporating pedagogical strategies and techniques which meet such individuals' educational needs (Section 2205(b)(2)(F)).

Similar language is present in Section 2208(d)(1)(F).

Because of Title I's size and prominence in serving children at risk of school failure, Title II places special emphasis on addressing the needs of teachers in schools receiving Title I, Part A funds. Teachers in schools that receive Title I support must be involved in the assessment of local needs, required under Title II (Section 2208(b)(2)). Furthermore, in their planning for professional development, SEAs and LEAs must take into account how Title II-funded activities address the needs of teachers in schools that receive Title I support (Section 2205(b)(2)(E) and Section 2208(d)(1)(B)). (The Title I statute requires similar coordination with the EPDP. See Section 1119(b)(11)(C).)

State and local Title II programs should engage in purposeful planning and ongoing tracking of the program's progress, supported by performance indicators. In order to achieve its ultimate goals of improved teacher practice and student performance, ESEA, as amended by the IASA, incorporates the federal government's emphasis on program performance and results. A number of the law's requirements are intended to encourage SEAs and LEAs to engage in a continuous improvement process, grounded in the careful setting of goals and in the monitoring of progress.

The 1994 law established detailed requirements for state and local planning under the Title II program. States receiving Title II funds must develop plans to improve teaching and learning. Among other requirements, these plans must be developed in conjunction with a wide range of agencies, organizations, and individuals, including local teachers and administrators, must include an assessment of state and local needs for professional development, and must explain how EPDP-funded activities within the state respond to those needs (Section 2205(b)(2)). LEAs applying to their states for Title II funds must develop plans for professional development; as with state plans to improve teaching and learning, local plans must be based on needs assessments, must be developed through a participatory process, and must describe how the local strategy for professional development will meet identified needs (Section 2208(c)(2) and Section 2208(d)(1)).[7]

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[7]In applying for Title II funds, states may elect either to submit to ED a program-specific application or to include Title II in an ESEA "consolidated application." If the state submits a Title II-specific application, it must include statutorily required information about the needs assessment it has conducted and its plan to improve teaching and learning. If the state submits a consolidated application, it need not include this information in that application. Similarly, LEAs have the option of seeking EPDP funds from their states through either program-specific applications or consolidated applications. If the LEA submits a Title II-specific application, it must include statutorily required information about its plan for professional development and its needs assessment. If the LEA submits a consolidated application, it need not include this information in that application unless the state requires it to do so.

An important aspect of local planning is the role of teachers in making decisions about the use of EPDP funds. The reauthorization legislation specifically states that LEAs

> shall use not less than 80 percent of such [EPDP] funds for professional development for teachers, and, where appropriate, administrators, and, where appropriate, pupil services personnel, parents, and other staff of individual schools in a manner that (A) is determined by such teachers and staff; [and] (B) to the extent practicable, takes place at the individual school site (Section 2210(a)(1)).

This provision reflects the Congress' conclusion that decisions about professional development are best made by school-level staff. At the same time, this professional development should be consistent with the LEA's overall plan for professional development (Section 2210(a)(1)(C)).

Finally, a key aspect of state and local plans is the requirement that states and districts participating in the EPDP establish performance indicators—a requirement that echoes the requirement in GPRA that ED establish performance indicators for all of its programs, including the EPDP. In both GPRA and the ESEA, as amended by the IASA, indicators based on results are a vehicle for more data-driven planning, evaluation, and program management.

Approach of This Evaluation of Part B of the Eisenhower Program

This evaluation focuses on the ultimate goals of the reauthorized EPDP—to improve teacher practice and, thereby, to have a positive and lasting effect on student performance. The evaluation also focuses on the strategies for EPDP-funded activities that the 1994 reauthorization emphasized to achieve those goals—embodying what is known about high-quality professional development; integrating EPDP activities with other reform and professional development efforts; including teachers of students from historically underserved populations; and using indicators to support program planning, evaluation, and improvement.

In order to examine the goals and strategies of the reauthorized EPDP, the evaluation addresses the following research questions:

Regardless of the content of state or LEA consolidated applications, ED has made it clear to states and districts that, if they include the EPDP in consolidated applications, they still must implement all planning requirements that apply to the program. However, information about planning and needs assessments need not be included in the consolidated application itself or otherwise prepared in the formal planning document.

Research Question #1 — What types of professional development activities does the Eisenhower program make available to teachers, and to what extent do these activities represent best practices? What approaches to professional development are supported (e.g., workshops, ongoing professional support, community-building activities), and what areas of content and pedagogy are emphasized?

Research Question #2 — Who participates in Eisenhower-supported professional development activities? Are activities targeted to appropriate types of teachers and schools (e.g., teachers of students from historically underrepresented populations or from high-poverty schools)?

Research Question #3 — As designed, planned, and implemented at the state, district, and school levels, how does the Eisenhower program fit into the mosaic of professional development and other systemic reform activities? What role does the Eisenhower program play with respect to reform efforts at the federal, state, district, and school levels?

Research Question #4 — From the teacher's perspective, how do Eisenhower-supported and other professional development activities combine to provide a coherent, integrated set of learning opportunities? To what extent do the various professional development activities in which a teacher participates fit together over time? To what extent do teachers at the same school experience an appropriately targeted, coherent set of experiences? How is professional development at the school level supported and constrained by characteristics of the school context (i.e., the organization of teacher work)?

Research Question #5 — Do teachers' experiences in Eisenhower-supported professional development activities, in the context of other professional development activities, contribute to teaching practice and to student achievement? Is there evidence that the cumulative professional development activities in which teachers participate over a several-year period produce changes in classroom practice? Are the practices that are fostered likely to lead to improved student achievement?

Research Question #6 — How is the Eisenhower program planned, coordinated, and evaluated at the state, district, and IHE levels? How do Eisenhower program structures and procedures, including the use of performance indicators, support professional development activities that reflect best practices; equitable participation of teachers of students from diverse backgrounds and schools; linkages with systemic reform and other professional development efforts; a coherent set of experiences for teachers over time; and improvements in teaching practice and student achievement?

To present findings of this evaluation, which is to be completed by April 2000, we will prepare a number of reports that address the above-described research questions, drawing upon a variety of sources of information:

- **In this, our first evaluation report**, we address research questions 1, 2, 3, and 6, using data from the first few months of the evaluation, just completed. This report is based on exploratory site visits in six school districts across the nation. Therefore, the "emerging themes" discussed in this report are not based on nationally representative data but rather are illustrative of some districts' approaches to using Eisenhower funds.

- **Future evaluation reports**, to be completed in late 1998 and 1999, will address all 6 research questions using a rich array of data, including national surveys of district Eisenhower coordinators, directors of Eisenhower projects in IHEs[8], and teachers who participated in program activities; in-depth case studies in five states; and a longitudinal study that will collect information from teachers and professional development providers about teachers' professional development experiences. In addition to addressing the emphases that are embodied in the 1994 reauthorization of the program, future reports also will examine the effect of professional development on teacher practice.[9]

- **Indicator reports**, to be completed Fall 1998 and 1999, will focus on the program's progress in meeting the goals and objectives set forth by ED's national performance indicators for the Eisenhower program.

Appendix A lists ED's performance indicators for the Eisenhower program. Appendix B contains a brief overview of the study design, including major data collection efforts.

Approach to Collecting Information. This report necessarily focuses upon data that could be collected during the first few months of the evaluation. AIR conducted exploratory case studies of six school districts during the spring of 1997, for three purposes: to provide the evaluation team with some information about the implementation of the EPDP in six diverse districts; to identify themes that the team would explore for the rest of the evaluation; and to help the team develop survey instruments and interview protocols for the next phases of the study. We chose exploratory case sites to represent variation across two types of characteristics: demographic and programmatic.

Demographically, we chose districts that varied in geographical region, district poverty level, district racial and ethnic composition, and urbanicity. Programmatically, we

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[8] This first evaluation report touches on the IHE/NPO component of the Title II program in a limited way, describing the characteristics of some professional development activities offered in case study districts by IHE Eisenhower grant recipients. We will investigate IHE Eisenhower grantees and the professional development they provide more fully in future reports.

[9] This evaluation focuses on change in teacher practice as the primary outcome of professional development. While increased student achievement is the ultimate goal of professional development, this evaluation is not collecting original student achievement data. We will, however, collect information about student achievement in two ways: (1) in the 30 in-depth case study schools, we will collect data on teacher practice, and we also will collect existing student achievement data; and (2) we are reviewing research studies that have examined the relationship between professional development, teacher practice, and student achievement.

identified a number of variables, either characteristics of the Eisenhower Professional Development Program itself or contextual factors we believed might influence the program's implementation. We wanted to ensure that the sample of six districts included: one district that participated in the Eisenhower program through a consortium; at least two sites that had IHE Eisenhower-supported projects working in the districts; and two districts located in states that had received waivers from ED allowing greater proportions of Eisenhower funds to support professional development in areas outside of mathematics and science. We also wanted districts that differed from one another in terms of the variety, extent, and characteristics of their state or local reform efforts. Appendix C provides additional information about our site selection criteria.

Based on these selection criteria, we collected information about a number of districts, reviewing documents and research reports and consulting with the evaluation's Advisory Panel and other experts in the field. We then narrowed the set of districts to six. The six districts are:

- **West City** — A large, urban district on the west coast, West City serves a predominantly minority population; under 15 percent of students are white, while nearly half are Asian, and another 20 percent are Hispanic. About half of the district's students qualify for a free or reduced-price lunch.

- **Middle City** — An urban district in the midwest, Middle City serves nearly 100,000 students. Nearly 60 percent of these students are African American, and almost two-thirds qualify for a free or reduced-price school lunch.

- **South City** — A large, urban county district in the southeast, South City serves predominantly minority students many of whom are not native English speakers. Nearly half of the district's students qualify for a free or reduced-price lunch.

- **Commuteville** — A large, suburban county school district in the mid-Atlantic region, Commuteville serves an ethnically diverse population. Just over two-thirds of students are white, with more or less equal representation of African American, Hispanic, and Asian students, and about 12 percent qualify for a free or reduced-price lunch.

- **Northtown** — Northtown is a small city in New England. Its population is predominantly white (about 80 percent of students are white), and over a third of students qualify for a free or reduced-price lunch.

- **Countryplace** — Countryplace is a consortium of seven school districts in a rural part of the midwest. The population is fairly homogeneous; virtually all of the 6,000 students served in the consortium are white, and less than 20 percent qualify for a free or reduced-price lunch.

After obtaining and reviewing background documents, such as state or district standards and curriculum frameworks or state consolidated IASA applications, two researchers conducted case studies in each site for two days. On-site visits included

interviews with most (or all) of the following individuals:

- the coordinator of the Eisenhower Professional Development Program;
- the director or assistant superintendent for professional development;
- the coordinator of the Title I program;
- curriculum specialists in mathematics and science; and
- the director of assessment and evaluation.

Other individuals were also interviewed (e.g., directors of federal programs other than Title I and directors of EPDP-funded IHE projects in the district). These respondents answered questions about: the EPDP; the activities it funds in the district; coordination between the EPDP and other programs and reforms; participants in EPDP-supported activities; and planning and evaluation of professional development in the district. The respondents also supplied additional documents, including budget information and lists of Eisenhower-funded activities in the district.

In addition, two focus groups—one of teachers and one of professional development providers—were conducted in each school district. In selecting teachers and providers for the focus groups, we relied heavily on the assistance of the Eisenhower coordinator in each of the six sites. The focus group members described the EPDP-supported professional development activities in which they have participated, and they described ideas concerning effective professional development. Teachers discussed beliefs concerning the effects of participating in professional development; and professional development providers discussed their practices with respect to evaluating the effectiveness of the professional development they provide. The criteria we set for the inclusion of teachers and providers in the focus groups are described in Appendix C.

Finally, we conducted telephone interviews with the Eisenhower coordinators in each of the six states in which the six case districts are located, and performed follow-up telephone interviews with the district Eisenhower coordinators, as necessary.

Organization of This Report

Based upon the emphases and strategies embodied in the current Eisenhower program, this report is presented in four sections:

- The types of professional development activities supported with Eisenhower funds, and their connection to high-quality professional development (Research Question 1);

- The relationship between the Eisenhower program, other systemic reform efforts, and other district-supported professional development (Research Question 3);

- The participation in Eisenhower-supported activities of teachers who work with historically underrepresented populations of students (Research Question 2); and

- Purposeful planning and tracking of progress, including using performance indicators (Research Question 6).

For each of the above topics, we present emerging themes from our six sites—themes that we will explore in subsequent phases of this evaluation.

II. Types of Professional Development Activities Supported with Eisenhower Funds and Their Connection to High-Quality Professional Development

According to the authorizing legislation, the Eisenhower program is to provide the type of professional development that will enable teachers to be on the "cutting edge" of fundamental and extensive education reform efforts. While other parts of the law may be used to support professional development—and Title I, Part A requires that districts receiving funds provide high-quality professional development—the EPDP is the only program authorized by the ESEA that is devoted exclusively to this purpose.

In the past, the majority of EPDP funds to school districts paid for low-intensity inservice training, averaging about six hours of training per year in 1988-89, as well as participation in the activities of professional associations (Knapp, Zucker, Adelman, & St. John, 1991). Short workshops and attendance at conferences may be useful components of a district's professional development program because they can spark teachers' interest in and awareness of developments in their academic disciplines. However, in isolation, they do not provide the types of high-quality professional development envisioned by framers of the 1994 reauthorization.

The sheer complexity of systemic reform requires additional approaches to professional development (Darling-Hammond & McLaughlin, 1995; Hargreaves & Fullan, 1992; Little, 1993; Richardson, 1994; Sparks & Loucks-Horsley, 1989). Systemic reform demands that teachers take on many difficult, complex problems (e.g., how to teach difficult subject matter, how to teach for greater understanding, how to do so for students who are increasingly diverse in their backgrounds). Rather than viewing teachers as consumers of knowledge and information, new forms of professional development often are premised upon the view that teachers are problem solvers, actively engaged in tackling serious issues of education reform "over the long haul." Under this model, teacher learning is viewed as challenging, collaborative, and ongoing. Professional development that is embedded in school activities, long-term teacher study groups, and content-specific networks of teachers are among the approaches to professional development that have been advanced to meet the demands of systemic reform.

Professional organizations, as well as individual experts in professional development, have recognized the new demands placed upon professional development by establishing standards that address the knowledge, skills, and instructional approaches teachers need to meet the demands of recent systemic education reform efforts in mathematics and science

(Stiles, Loucks-Horsley, & Hewson, 1996); ED also has established its own Principles of High-Quality Professional Development (U.S. Department of Education, 1994). Exhibit I summarizes standards and principles for high-quality professional development developed by various groups.[10]

These characteristics, in one form or another, are all present in high-quality professional development. Taken together, they amplify the legislation's requirements that the EPDP fund professional development that is sustained, intensive, ongoing, and of high quality. These characteristics comprise our current framework for assessing the quality of the professional development experiences the Eisenhower program provides to teachers.

Clearly, from its many features, high-quality professional development, itself, can take many forms. The authorizing legislation recognizes this by allowing EPDP funds to be used for a broad range of activities. EPDP has few limitations on the expenditure of funds on professional development activities—whether ongoing or discrete, within school or external to the school environment.

EPDP funds may be spent on professional development of teachers, administrators, or other personnel, which can support the types of school-based professional development advocated in the literature; follow-up for teachers who have participated in professional development activities, which the literature shows to be effective; new forms of professional development such as professional networks among teachers; release time with pay for teachers so that they may attend professional development activities; and myriad other activities (Section 2210(b)).

> ***Emerging Theme #1:*** **Across the six case study sites, the Eisenhower Professional Development Program supported a wide variety of activities, although that range was much broader at some sites than at others.**

In keeping with the legislation and the diversity of professional development itself, we found that, across the six sites we visited, EPDP supported a great diversity of professional development activities. Through our interviews and an examination of district-level planning, budgetary, and other documents, we categorized EPDP activities into the following types: in-district workshops and institutes; college courses; out-of-district conference attendance; out-of-district workshop and institute attendance; teacher collaboratives and networks; immersion activities; mentoring, coaching, or observation; teacher resource centers; committees or task forces; teacher study groups; independent research projects; and other activities. The above typology reflects our current categorization of professional development activities; this typology also is similar to one recently identified by other researchers (Loucks-Horsley, Hewson, Love, & Stiles, 1997).

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[10] Various groups have developed standards of high-quality professional development. They share many common elements. We have relied upon a review of some of these standards by Stiles, Loucks-Horsley, and Hewson (1996) for an organizing framework. The points made in this framework are similar to those in ED's *Principles of High-Quality Professional Development* (U.S. Department of Education, 1994), though they are ordered and sometimes worded differently. We have specifically cited the ED principles when they add new concepts to the framework.

EXHIBIT I

Features of High-Quality Professional Development

- ***A vision of effective student learning and teaching*** that serves as a guide for the content and approach to professional development. This vision includes:

  - a commitment to the concept that all children can learn to high levels; and
  - a commitment to helping all learners to achieve a deep understanding of core concepts through inquiry-based learning, problem-solving, investigation, and discovery.

- ***The content of professional development***, which provides teachers with a deep and thorough knowledge of:

  - the disciplines they intend to teach;
  - how children learn; and
  - how to integrate this knowledge to create a "culture of ongoing learning in their classrooms."

  ED emphasizes content that "enables teachers to develop further expertise in subject content, teaching strategies, uses of technologies, and other essential elements in teaching to high standards."

- ***Approaches to professional development experiences*** that promote learning for adults and that "mirror methods to be used with students." These approaches:

  - build on teachers' current knowledge;
  - allow teachers to construct their own knowledge through immersion in scientific and mathematical processes;
  - provide teachers with opportunities to work in collaborative teams; and
  - provide adequate time and ongoing opportunities for deep learning, including opportunities to develop, practice, and reflect upon new knowledge, and foster coherent learning experiences for teachers.

  ED's principles emphasize that such approaches require substantial time and other resources, and promote continuous inquiry and improvement embedded in the daily life of schools.

- ***Expanded roles for teachers*** that involve:

  - working collaboratively in learning communities in their own schools; and
  - taking on a variety of leadership roles by supporting other teachers as mentors, coaches, lead teachers, and study group facilitators, as well as taking on other leadership roles in planning and implementing professional development opportunities for themselves and other teachers.

In addition, systemic reform demands that professional development be better linked to other parts of the education system through:

- ***Links to other education initiatives*** and alignment of professional development with high academic standards, curriculum frameworks, and assessment. ED's principles elaborate on this point by advocating that professional development be driven by "a coherent long-term plan."

- ***Accountability for results and continuous improvement*** of professional development, both through participant satisfaction and engagement, as well as developing approaches to evaluating its impact on teacher practice and effects on student learning. ED specifies that this evaluation "...*guides subsequent professional development efforts.*"

Source: Adapted from Stiles, Loucks-Horsley, & Hewson (1996), and U.S. Department of Education (n.d.).

Interviewees in our six case study sites stated that they valued EPDP funds specifically for the wide range of allowable activities. They reported that EPDP allowed them to fund substitute teachers and to purchase materials for professional development. Many other funding sources did not make such allowances; and the range of activities was much broader in some sites than in others.

Types of activities funded by EPDP in the six districts are highlighted in Exhibit II. Such descriptions are meant to be illustrative, not exhaustive, of the types of activities sponsored by the EPDP in the six case districts.

While we found that EPDP supported a wide range of activities across the six districts, we also found that the array of funded activities differed dramatically from one district to another. In Countryplace, teachers had only one option for professional development: they could attend state or regional conferences. In other sites, including South City and Commuteville, the set of options for teachers was referred to as a "menu"; these menus appeared to be quite broad in their offerings. Although it was possible in some instances for teachers to receive support through EPDP to attend activities not listed on the menu, for the most part these menus defined the professional development options for teachers.

Differences across districts seemed to reflect the districts' general approaches to professional development, rather than an approach of the Eisenhower program itself. In other words, if the district supported a broad array of professional development, in general, then the Eisenhower program supported this broad array (typically when activities focused on mathematics and science education). Similarly, if the district supported a narrower range of activities, the Eisenhower program also supported a narrower range. The following vignette describes a district with high variation in available activities.

Commuteville had a strong commitment to professional development for K-12 teachers. This commitment was evidenced in the provision of more than 400 district- and university-sponsored[11] professional development activities each year, heavy reliance on teachers to lead professional development activities, and use of state and federal funds to pay for teachers to attend graduate-level courses. Approximately 20 percent of these were math and science-related activities, many of which were funded through Eisenhower. The three primary activities receiving Eisenhower funding were: courses in the district's own professional development "academy," primarily five-week math and science courses taught by experienced teachers; district-run courses for teachers who were going to be lead teachers in mathematics and science within their schools; and reimbursement for university graduate-level courses.

[11] Though no Eisenhower-funded IHE projects operated in the district, the district had close relationships with several local colleges and universities.

EXHIBIT II
Types of Eisenhower-Supported Professional Development Activities

Type of Professional Development Activity	Examples from the Six Case Districts
In-district workshops and institutes	All case districts (excluding Countryplace) supported in-district workshops and institutes. Typically, workshops lasted anywhere from a few hours to two or three days, while in-district institutes could be anywhere from two weeks to a semester in duration. In one district, South City, these activities comprised the vast majority of all activities supported with Eisenhower funds. In others, these activities represented a smaller percentage of Eisenhower offerings.
College courses	Although not a primary focus of any of the district's Eisenhower programs, most did support individual teachers who enrolled in college courses to further their subject area knowledge. Teachers reported enrolling in these courses when they planned to teach outside of their areas of expertise.
Out-of-district conference attendance	Most of the case sites used Eisenhower-funds to support conference attendance; Countryplace used its Eisenhower funds exclusively for that purpose.
Out-of-district workshop/institute attendance	In most districts, we found that Eisenhower funds supported teachers' attendance at out-of-district workshops and institutes but that these activities were less numerous than in-district workshops and institutes.
Collaboratives/networks	One district, Middle City, used a small portion of its Eisenhower funds to support a listserv for mathematics and science teachers.
Immersion activities	In one district, Middle City, some teachers worked in business and industry over the summer and drew on their experiences to write curriculum units. This activity was sponsored by an IHE project in the district, which was closely integrated with other district EPDP activities.
Mentoring, coaching, or observation	Five districts (all but Countryplace) used some Eisenhower funds to support the activities of mentors, coaches, and teacher leaders who worked with other teachers to improve their mathematics and science instruction.
Teacher resource centers	One district, Middle City, used Eisenhower funds to support, in part, a resource center in mathematics and science education for teachers who had attended other Eisenhower-supported activities.
Committees or task forces	Two districts, West City and Middle City, supported committees of teachers and other educators as they planned for the adoption of new curricula.
Study groups	At least one district, West City, supported teacher study groups, in which teachers met to compare curriculum and instructional strategies for middle school science or to discuss new curricula and children's learning, with Eisenhower funds.
Independent research projects	In one district, Middle City, teachers could apply for "mini grants" that they used to support independent research projects.
Other	In one district, South City, teachers applied for "mini grants" to support the purchase of materials; teachers who participated in professional development often used these materials to conduct inservice demonstrations for other teachers.

Interviews with a variety of district personnel in our six districts indicated that the breadth of Eisenhower-funded activities was attributable to a variety of factors. In one case—the case of Countryplace, which used its Eisenhower funds to send teachers to conferences—the lack of breadth of activities was in part an effect of the rural location of the consortium, where other forms of professional development were not accessible, and in part a result of teachers' preference for this sort of professional development, as it allowed them to meet colleagues and hear ideas from outside their own district.

In other districts, the activities tended to reflect the Eisenhower coordinator's and administrators' ideas about: what professional development should be; how boundaries of professional development are defined; and the kinds of activities viewed as necessary to meet the district's needs. For example, in most sites, professional development was viewed explicitly by the EPDP coordinator and other district staff as a *support* for other reform efforts. In some sites, professional development was viewed as a means of getting individual teachers "up to speed." Often, professional development was developed to address teachers' preferences for experiences that would meet career ladder criteria, and, therefore, was focused upon the broad range of teacher preferences, as well as upon district priorities.

Another factor that may have contributed to the differences across districts in Eisenhower-supported activities was the total amount of funds (EPDP and other funds) available for professional development. Our six case districts, which included both very small and very large districts, received vastly different amounts of funding; during the 1996-97 school year, the five districts and one consortium received Eisenhower grants of approximately $17,000, $20,000, $300,000, $325,000, $710,000, and $1.5 million.[12] Though districts spent differing amounts on professional development, those figures represented, in most cases, roughly 15 to 25 percent of their total professional development budgets.[13]

Districts' Eisenhower grants provided them with roughly comparable per pupil funds (only "roughly comparable," given the funding formula that allocates more money to districts with higher rates of children living in poverty). However, a large professional development budget in absolute terms may allow districts to provide a wider range of professional development opportunities to teachers. A critical mass of funds, therefore, may be necessary to provide many activities that take place over time, or that draw on multiple types of professional development experiences. Therefore, even when funds available per pupil or per teacher are roughly comparable, larger districts may still be able to provide some opportunities smaller districts cannot provide (though such opportunities may reach a relatively small number of teachers).

[12] To preserve district anonymity, we have chosen not to identify districts by name, or even pseudonym, here. These figures also do not reflect any Eisenhower-funded IHE projects that operate in the districts.

[13] Because districts may count different items in their professional development expenditures, and because it was not a purpose of these case studies to identify a common set of professional development expenditures, we will not explore professional budget allocations in detail in this report.

Emerging Theme #2: **In some case sites, Eisenhower-funded activities were designed to emphasize several elements of high-quality professional development. In these sites, we found activities that emphasized: (1) providing more sustained, intensive professional development; (2) using teachers as leaders of professional development activities; and (3) promoting alignment with high state or district standards.**

High-quality professional development embodies a broad and complex set of features, described in Exhibit I. In the six districts visited, Eisenhower coordinators appeared to be aware of at least some of these features of high-quality professional development; and, when asked their own opinions of the characteristics of high-quality professional development, they volunteered that it:

- emphasizes more sustained, intensive professional development activities (than traditional short workshops);
- is led by other teachers; and
- is aligned with state or district standards.

Eisenhower coordinators in the six districts were less likely to cite other elements of high-quality professional development, such as an emphasis on thorough content knowledge or accountability for results. The following sections discuss the three aspects of high-quality professional development identified in interviews with Eisenhower coordinators and other district administrators and teacher focus groups in our exploratory case sites.

Sustained, Intensive Learning Experiences. Sustained, intensive professional development activities provide teachers with learning opportunities that, because they take place over time, allow teachers to reflect upon their own learning and to experiment with new curriculum units or instructional techniques. Such activities often include opportunities for teachers to come back and discuss their experiences with other teachers and professional development leaders. Thus, high-quality professional development activities often feature multiple types of learning experiences (e.g., workshops, teacher study groups, curriculum writing, follow-up coaching).

In the sites we visited, teachers and administrators described some Eisenhower-supported professional development activities characterized by those features. Such activities were not found in all of the sites, however. In most sites, though, there seemed to be an awareness of the *desirability* of sustained, intensive professional development activities. Eisenhower coordinators in a number of sites spoke of moving toward "longer-term" activities. In such districts, the Eisenhower coordinators, as well as the teachers and professional development providers in our focus groups, identified a number of Eisenhower-funded activities that were fairly long term (i.e., from about five to twelve weeks to several years in duration) and that involved substantial follow-up support.

The following vignettes from Middle City illustrate activities explicitly designed to provide teachers with ongoing opportunities to grow professionally. The first vignette describes a district Eisenhower-supported activity.

> Middle City defined professional development broadly, including teacher participation in its curriculum-defining committees. By 1997, when we visited this site, one group of 60 teachers had been working on such a committee in a sustained manner for five years. Group members initially wrote the first framework for science in Middle City, eliciting feedback from their peers and trying out new ideas in their own classrooms. By meeting once a month after school and some Saturdays for over a year, this group of teachers reflected and came back together to discuss their ideas and experiences with each other and education department staff. The group's work then expanded to the development of other frameworks, and textbook adoptions, so that their contact has been ongoing and developmental. For their work, group members received continuing education units (CEUs) and had to commit to evaluation, adoption of the best fit curriculum, implementation, and the fundamental connection of curriculum, teaching, and assessment. Their group networking resulted in members' involvement in other professional development both as leaders — such as mentor teachers — and participants in a wide variety of professional development activities.

The second vignette describes two professional development activities in Middle City that were provided in the district through two different local universities' Eisenhower grants from the SAHE. One requirement of the IHEs' grants is that they enter into an agreement to conduct their professional development project in a school district; these IHEs were just two of several that used their Eisenhower grants to provide professional development to teachers in Middle City.

In Middle City, teachers were involved in the professional development activity *Testing the Waters*. This "activity" comprised multiple components. Teachers first attended an initial workshop. Subsequently, teachers and their students collected water samples from the nearby river, conducted tests, and uploaded the data onto a listserv shared among a number of participating schools. Teachers then met on a regular basis to compare results and to discuss how to integrate this ongoing activity into their curricula. Finally, the leaders of the activity — professors at a local university — were available to coach (i.e., to observe teachers in their classrooms and provide feedback on their practices). Most teachers were involved in *Testing the Waters* for at least one year, although many reportedly participated for several years.

* * * *

The result of Ms. Smith's EPDP experience was a classroom foundry where the year before there had been a relatively ordinary laboratory. Ms. Smith attended a series of Eisenhower-sponsored activities combined in the Business and Industry Awareness Project run by an institution of higher education affiliated with Middle City. First, she participated in a college course on curriculum writing. Then, she spent the rest of her summer working in a local foundry — sorting metals, pouring liquefied steel, learning the entire production process. At the end of the summer, Ms. Smith — again in a college classroom setting — wrote curriculum based on her experiences. Ms. Smith then extended these learning experiences by turning her own classroom into a "foundry" something like the one she worked in over the summer. Students entering Ms. Smith's classroom now crossed caution tapes to step inside the new "foundry." They engaged in the processes Ms. Smith learned during her summer immersion experience, learning embedded science concepts at the same time. Laboratory safety was covered, as students learned to wear the heavy gloves necessary to sort sharp pieces of metal. The project was so successful for her students that she planned to expand it for the next school year.

As described, the activities in the vignette suggest several tenets of high-quality professional development: they took place over time, involved teachers as leaders, and emphasized multiple modes of learning. A description of an IHE-sponsored activity for mathematics teachers in West City also included these characteristics of high-quality professional development. In subsequent phases of this evaluation, we will continue to look for evidence of high-quality professional development, in activities supported by districts themselves, as well as in IHE-supported professional development activities.

In brief, some of the case districts have moved toward professional development activities, including those supported by the EPDP, that are more sustained and intensive — and teachers and administrators alike seem to recognize the advantages of such activities.

Teachers as Leaders. In all sites, teachers were involved as activity leaders. They led workshops (e.g., presentations to department meetings, presentations during in-service days); conducted seminars or hands-on demonstrations at conferences; and worked as mentor-teachers or lead mathematics or science teachers in their school districts. In all districts but Countryplace, an important strategy of the Eisenhower program was training and supporting mathematics and science leaders or resource teachers. Though the ways in which the districts trained and used those teachers, and the ways in which Eisenhower funds were

used to support the work they did, differed substantially across districts, five districts were involved in training and supporting teachers who served as specialists available to others in the school or district. The resource teachers assisted other teachers in a number of ways, including demonstrating lessons, reviewing curricula, and observing classrooms.

The districts called these teachers by different names: alternatively "lead teachers," "coaches," "mentors," "resource teachers," and "teacher leaders." The ways in which districts used these teachers varied; in some districts their role was quite limited, while in others they were clearly an important element of the district's plan for professional development and for implementing reforms. In two districts, the use of teacher leaders seemed to be more developed than in the others.

One district — Commuteville — had set a long-term objective of training a lead teacher in every subject area in every elementary school; the Eisenhower program supported the training of mathematics and science resource teachers. This strategy was central to the district's overall approach to professional development. In another district—West City—lead teachers were trained to be change agents in their home schools. Unlike Commuteville, this district's aim was to train one or more teacher leaders for every school, but not necessarily in every subject area. In both of these cases, lead teachers remained classroom teachers, available to their colleagues on a daily basis. The training of lead teachers in Commuteville is described in the following vignette.

Commuteville invested much of its Eisenhower efforts toward developing teacher leaders at the elementary level through its mathematics and science lead teacher program. Lead teachers were classroom teachers who received extensive and continuous training over the course of the school year from district professional development providers in both content and instructional strategies involving, for example, the use of manipulatives and technology (for mathematics). They maintained their full-time classroom teaching responsibilities while serving as a resource to colleagues in their school and as a liaison between local school, area, and central office curriculum specialists. Lead teachers provided school-based leadership and "turnaround" training for their colleagues. They were also a primary resource as providers of professional development through the district's college and noncollege credit courses (the district had an arrangement with a nearby university to award university credit for some district-run courses teachers complete). Training for mathematics lead teachers involved two three-credit hour courses and participation at a National Council of Teachers of Mathematics (NCTM) mathematics conference. Funding was also available to cover the cost of substitutes and most travel expenses incurred by attending the conference.

In three other districts, the role played by resource teachers was more limited, essentially because there was not a teacher leader in every school. In South City, the Eisenhower program trained two resource teachers, one in mathematics and one in science, for each of the district's 26 feeder patterns (each of which comprised approximately eight elementary schools, two middle schools, and a high school). The program was only one year old, and resource teachers in our focus group reported that they were underutilized in their first year. In Middle City, teacher "mentors" were available upon request to work with district teachers who had used the district's science center. In Northtown, mathematics and science coaches worked with teachers upon request. Coaches also identified and worked

with individual teachers who seemed to be using fewer hands-on curriculum materials than were their colleagues. In these last two cases, the teacher leaders were no longer classroom teachers. Countryplace had used teacher leaders to disseminate training but moved away from that model in response to limitations in state legislation.

Alignment with content and student performance standards. While alignment of professional development with high content and performance standards is a critical element of high-quality professional development, such alignment is not easily identified in practice (Grant, Peterson, & Shojgreen-Downer, 1996; Webb, 1997a, 1997b). Across most of our sites, the driving force behind professional development was reported, by both teachers and administrators, to be state or district standards. Still, how standards influenced professional development varied to some extent across sites.

In South City, teachers and administrators said that all professional development was aligned with the district's competency-based curriculum, which was aligned with the state's standards. In Countryplace, where teachers at our site attended only state or regional conferences, every activity sponsored at state-level conferences was specifically classified according to its link to one of the state's standards. In other sites, standards were the driving force behind all district-level activities, including professional development. According to district administrators in these sites, the overarching concept of standards was used to unite district efforts, including professional development.

The following vignette shows how one district used its standards to guide all reforms, including professional development.

> Middle City used its K-12 Teaching and Learning Standards, which covered ten goals and seven content areas, to drive all of its reform activities—and it viewed professional development as integral to the process of meeting these standards. Professional development activities designed at the district level were specifically targeted to meet the standards. Schools were required to have education plans that addressed the teaching and learning standards and that included an action plan for staff development. Each time the school or teachers within the school proposed to attend or put together a professional development activity, the Eisenhower coordinator (if the activity was to be supported with Eisenhower funds) or another district administrator ensured that the activity was consistent with district standards and with the school's action plan for staff development. Only activities found to be aligned with standards and the action plan could be approved. Further, at the individual level, teachers who applied for Eisenhower-funded "mini grants" also had to specify how their professional development activities would be aligned with the standards. Standards were key to this district's reform cycle: curriculum, assessments, and performance indicators for student achievement all were aligned with these districtwide standards.

District administrators, including Eisenhower coordinators, seemed to value aligning professional development with standards, and said they were attempting to achieve such alignment. This might be viewed as a potential indicator of systemic, strategic thinking about reform. This reported alignment, however, between professional development and state and district standards raises several questions. Are professional development providers told to design their activities to support standards but left to do so on their own, or are all

professional development activities fused with curriculum or assessment development that is directly tied to standards? How deep does this alignment run? We know from other sources that many features of the educational system, such as assessment, are quite difficult to align with standards (Webb, 1997a, 1997b). Is professional development easier to align with standards than is assessment? If so, why? At this point, limitations in our data make it difficult to assess the depth of the alignment between professional development and standards.

Summary and Issues Raised

Eisenhower funds supported a variety of activities in the six districts we visited. We found that the range of available professional development activities was wider in some districts than in others. The availability of a variety of activities could, itself, reflect one aspect of high-quality professional development—a district's ability to meet the individual professional development needs of teachers who differ in their levels of content knowledge or skills in teaching to high standards. Larger districts tended to offer more variety in professional development than did smaller districts. Because large districts have larger budgets than small districts, they may be able to offer a greater range of professional development opportunities, even if no more resources per teacher are devoted to professional development. At the same time, it is possible that a large variety of activities could indicate that funds are spread too thinly to provide the types of activities that both the literature on high-quality professional development and the Title II authorizing legislation describe.

Our interviews with district staff and focus groups with teachers indicated that some Eisenhower-funded activities appeared to have the characteristics of high-quality professional development. These characteristics included a move toward more sustained, intensive professional development activities, an emphasis on teacher leadership, and efforts to align professional development with content and student performance standards.

There was less evidence in our six case sites to suggest that other characteristics of high-quality professional development were present. High-quality professional development, as defined in the literature, should be based upon a vision of effective teaching for diverse student populations, should foster teachers' deep understanding of content, and should, according to ED's principles, be embedded in the daily life of the school. These features, however, were less evident in our case sites for a number of possible reasons. For instance, administrators' and teachers' visions of just what constitutes high-quality professional development may have not yet embraced these concepts. Alternatively, some characteristics of high-quality professional development may be harder to achieve than others. These hypotheses, too, will be explored further in subsequent phases of the evaluation.

Because we did not observe professional development activities as a part of our exploratory case study work, we cannot at this time judge the extent to which the specific professional development activities in our six districts actually reflected high quality. We can only comment on what administrators and teachers, through interviews and focus groups, said about professional development in their districts. We will continue to explore the issue of high-quality professional development, through observations of Eisenhower-supported

professional development activities and interviews and surveys of teachers and providers, in subsequent phases of this evaluation.

III. The Relationship Between The Eisenhower Program and Other Education Programs

Aligning professional development with high standards, curriculum frameworks, and assessments is a key element of high-quality professional development. Such alignment can be enhanced by integrating professional development policies and programs with other reform efforts. School districts, states, and the federal government all provide support for such reform efforts. Aligning these efforts is an underlying assumption of the EPDP legislation, with its requirements for coordinating the program with other federal, state, and local education and professional development programs and activities and for "cost sharing" between EPDP and other funding sources. ESEA also now grants states and districts greater flexibility through increased waiver authority, enhancing their ability to integrate the Eisenhower program with other state and local education programs and reforms.

Achieving alignment among different facets of the education system is, however, complex. Aligning parts of the education system involves changes in policy and practice at all levels of education (Grant, Peterson, & Shojgreen-Downer, 1996). While researchers have begun to document the complexities of aligning the different facets of the education system, less has been written about how to achieve such alignment (Massell, Kirst, & Hoppe, 1997; Webb, 1997a, 1997b).

The Eisenhower program predates recent moves toward systemic education reform, and it operates as just one program among many in the nation's school districts. In some districts, it exists alongside one or two other education programs such as Title I, Part A or a new state assessment program; in other, usually large districts, it is one of a panoply of federal, state, and local programs, reform efforts, and professional development initiatives. In partial recognition of this fact, the legislation requires local plans for professional development to describe how Title II funds would be coordinated, as appropriate, with IHE projects, similar state and local activities, resources provided under Title I, Part A, resources from business, industry, public and private nonprofit organizations, funds or programming from other federal agencies such as the National Science Foundation, and resources provided under IDEA (Section 2208(d)(1)(H)). The law's cost-sharing requirement also fosters links between Title II and a large variety of other education programs. While LEAs must provide at least 33 percent of the cost of Title II-funded activities, they may use funds from a wide range of non-federal as well as federal sources for cost-sharing (Section 2209).

Our six exploratory case sites reveal a glimpse of the wide range of relationships that the Eisenhower program may form with other programs and with reform efforts in different school districts.

> ***Emerging Theme #3:*** **The Eisenhower program was focused largely upon mathematics and science in our case study sites. The program's relationship to other reform efforts and programs was essentially to support the mathematics and science components of existing reform or professional development approaches.**

To a great extent, the alignment between the EPDP and other education and professional development programs took place within the subject areas of mathematics and science. The EPDP has a long history of supporting professional development in those areas. The 1994 reauthorization of the program introduced, for the first time, two options for using Eisenhower funds to support professional development in other core subject areas:

- First, the legislation states that any funds appropriated for the program in excess of $250 million may be used, at the LEA's discretion, for professional development in the other core subject areas. In FY 1996 (funds available for the 1996-97 school year), approximately 14.7 percent of the program's funds were available for professional development in other subject areas.

- Second, states and districts may apply for a waiver from the federal government allowing them to devote larger percentages of their Eisenhower grants to professional development in other subject areas. Eight states and two district consortia have been granted such waivers.[14]

Two sites—Commuteville and Countryplace—were chosen because ED had granted waivers to their states permitting the use of Eisenhower funds for professional development in subjects other than mathematics and science. The two sites differed in the use they had made of this freedom; the following vignette describes the approach of one of these sites.

Commuteville was beginning to use a small portion (about $15,000) of its $325,000 in 1996-97 Eisenhower funds for professional development in subjects other than mathematics and science. First, the Eisenhower program funded a small curriculum development project for English/language arts teachers. The district allocated $7,000 of its Title II budget for two groups of teachers to develop resource guides for teachers; a major focus of these guides was on teaching technical writing to students. The district also allocated about $8,000 of its Eisenhower funds to social studies; the funds were used to send several dozen teachers to a national social studies conference held near the district. The social studies coordinator indicated that he used the funds for this purpose so that teachers in his subject would be able to attend national conferences, just as their mathematics and science counterparts had been doing for years. In the 1997-98 school year, close to $60,000 of the district's Eisenhower budget will be spent for professional development in social studies, while none will support English/language arts. The district was increasing the funds for social studies because the state had recently revised its curriculum frameworks in social studies, and the district identified a pressing need to help teachers learn about the new frameworks.

Countryplace, in contrast, did not take advantage of its state's waiver allowing the use of Eisenhower funds for professional development in other subject areas. The consortium's rationale was that its teachers still needed professional development in science and mathematics more than in other subjects, despite some principals' expressed desires for

[14] In addition, states may apply to ED for "ED Flex" status which, if granted, allows states to grant waivers to LEAs that request them (these waivers may apply to Title II or to other federal programs). As of January 1998, twelve states have been granted Ed Flex status by ED; none of our six case districts was located in an Ed Flex state.

more professional development in reading.[15] The other four districts visited also elected not to use any of their funds for professional development in subjects other than mathematics and science, even though they could have done so, since funding for the program exceeded $250 million.

A number of factors seemed to contribute to this continued focus on mathematics and science:

- ***Mathematics and science have been the program's focus since its inception in 1985.*** State coordinators, district coordinators, and other staff are accustomed to the use of EPDP funds in these subject areas. In several of our six districts, the subject-matter coordinators in mathematics and science had substantial responsibility for the Eisenhower program, or the responsibilities for mathematics and science curriculum development and the Eisenhower program resided in the same person.

- ***There are constraints on the use of funds for other subject areas.*** Without a waiver, the amount of Eisenhower funds available for other subject areas often is minimal. Yet, some felt that applying for a waiver itself represents some additional work. (None of our six case districts had applied for a waiver on its own.)

- ***In the absence of a waiver, districts could use approximately 14.7 percent of their FY 1996 Eisenhower grants for professional development in other subject areas,*** but some Eisenhower coordinators believed that they would be unable to use effectively the small amount of funds that would be available for this use.

- ***EPDP has become linked with a number of systemic reform initiatives in mathematics and science, particularly those funded by the National Science Foundation.*** These relationships maintain a strong constituency to support the use of EPDP funds for mathematics and science, as described below.

- ***Some Eisenhower coordinators felt that the Eisenhower program was one of few reliable resources for professional development in mathematics and science; other professional development resources often emphasized reading and language arts.*** The coordinators, therefore, were hesitant to reduce the program's traditional emphasis on mathematics and science.

It is evident, then, that an almost exclusive focus upon professional development in mathematics and science framed the context for EPDP's connection to other education reform and professional development efforts.

[15] The waiver in this case was granted to the state, which also had not promoted the idea of expansion to other subject areas among their districts. According to the state Eisenhower coordinator, expansion was planned but had not yet been implemented.

Emerging Theme #4: **The Eisenhower program's connection with other reform and professional development efforts took different forms across districts, in large part because reforms, themselves, varied significantly across districts and states.**

In the six case districts, Eisenhower-funded activities functioned as a part of other reform efforts or professional development strategies. The program consistently funded professional development activities in mathematics and science. However, in other ways, the activities it funded varied dramatically across the six districts, as discussed above. The most significant factor accounting for this variation appeared to be the nature of the specific federal, state, or local education reforms or professional development strategies most closely linked with the Eisenhower program.

In general, Eisenhower-funded activities reflected specific state and local reform efforts, most notably the implementation of state content and student performance standards (as described above), the adoption of new curricula and textbooks, and other local professional development initiatives. These state efforts sometimes were linked to the National Science Foundation's State Systemic Initiatives (SSI) and Urban Systemic Initiatives (USI), which support efforts to improve elementary and secondary mathematics and science education. Two of the six case districts were in states that have current SSI grants; another had a USI grant; and two others had recently concluded their recent state or local NSF-supported initiatives. We found a range of ways in which the EPDP supported education reform in districts. The following two vignettes illustrate how Eisenhower funds supported broad, comprehensive reform or professional development strategies.

In West City, the Eisenhower program was thoroughly coordinated with the district's plans for education reform. The district was in a strongly standards-driven state, and state standards and curriculum frameworks dominated professional development efforts. When the district was about to initiate a reform effort, for example in mathematics, it began with the formation of an implementation team that developed an implementation plan. Then teacher leaders were selected. They were trained and worked with district staff; some teachers were actually assigned to the district office for a period of three to five years. After training in the reform—through two to three week long summer institutes—teacher leaders provided training and support for other teachers during three district wide staff development days. The Eisenhower program was especially involved in the teacher leader efforts over the past two years because they were focused on mathematics reform. Eisenhower funds were used for teacher stipends and for substitutes to allow teachers to participate in these activities, weekend seminars and workshops, work groups for planning and developing products, such as assessment tools, and building-level support efforts. The focus of the reform efforts in this district shifted periodically, usually in conjunction with a new textbook adoption. Even so, next year, when the emphasis shifts to writing, the EPDP funds will continue to support mathematics and science activities, focusing on writing across the mathematics/science curriculum.

In Commuteville, the Eisenhower program was one funding source for a broader strategy for professional development to implement mathematics and science reform. The district was a leader in developing the state's approach to reform in these subjects, through an SSI grant that had just ended. The district aligned mathematics and science reform with its multifaceted approach to professional development. The district offered teachers four main types of professional development: a mentor program for first-year teachers, training of teacher leaders in all subject areas for every elementary school, courses through the district's Academy, and the purchase of materials and payment of conference fees. These activities were available to teachers of all subject areas, and the district's Eisenhower program was an important funding source for these activities when they focused on mathematics and science. Because of the district's Eisenhower grant, more of these professional development activities were available in the areas of mathematics and science than were available in other areas, according to district officials.

The next vignette illustrates a different approach to integrating EPDP with other education and professional development programs. This district is one in which Eisenhower funds were closely tied to district mathematics and science reform funded through a USI grant. Mathematics and science professional development activities appeared, however, to be almost independent professional development efforts outside of mathematics and science.

In South City, the Eisenhower program more than supported the local Urban Systemic Initiative, funded by NSF; it was largely subsumed by it. The district pledged its Eisenhower program in support of the five-year USI program, and, therefore, the two programs worked jointly toward the same objectives. While such close alignment might be beneficial to reform and professional development, the arrangement may have had some unintended negative consequences. The EPDP staff in the district felt that the professional development provided by the Eisenhower program had suffered, at least in the short run. Activities supported by the program tended to be shorter in duration and involved less follow-up than they had prior to the collaboration with USI. The Eisenhower coordinator attributed this change to the fact that the USI director and his staff were relatively inexperienced in planning, organizing, and providing professional development. Though she encouraged them to maintain intensive professional development activities, they opted for shorter workshops. The district's USI director, however, seemed to be cognizant of the shortcomings of the short workshop model, and the Eisenhower coordinator was optimistic that current problems would be "worked out in the future."[16]

In this district, the Eisenhower program was quite separate from district professional development activities in other subject areas. Reform efforts were clearly subject-based. The Eisenhower and USI programs, combined, provided virtually 100 percent of all funding for professional development in math and science. Other professional development in the district, while run from the same district office as the Eisenhower program, operated separately.

[16] It is important to note that the relationship between USI and Title II in this district may not be representative of analogous relationships in other districts.

Finally, the following vignette illustrates how Eisenhower funds can play a smaller, though still supportive role in reform efforts, in a much smaller setting. In this case, however, the Eisenhower program is less integrated into the full range of reform efforts and professional development activities.

> A much less complex example was Countryplace, where Eisenhower funds supported teacher attendance at conferences that addressed the state's recently adopted content and student performance standards. In this way, the Eisenhower program supported implementation of the state's standards-based reforms: the consortium program paid for teachers' attendance at conferences, and the conferences they attended in recent years focused on the state standards for mathematics and science education. However, it seemed that this coordination, at least at the consortium level, was fairly coincidental; according to the consortium's Eisenhower coordinator, the consortium would have sent teachers to any conferences (within reason) to which teachers applied, regardless of whether or not they focused on the state's standards. The state, however, was purposeful in conducting conferences (supported, in part, with the portion of Eisenhower funds allowed to go for state-level professional development) that addressed the new standards.

The variety observed in the Eisenhower program's relationship with other state and local reform efforts is an effect both of the variety found in education reforms taking place across the nation and of the flexibility built into the Eisenhower program. It is to this flexibility that we now turn.

> ***Emerging Theme #5:*** **The reliability of Eisenhower funding, as well as the program's wide range of allowable activities, supported districts' ability to engage in long-term planning, and it allowed districts to leverage other funds for professional development.**

In its establishment of the Eisenhower Professional Development Program, the Congress clearly stated its intent that SEAs and LEAs be held accountable for meeting needs identified at the state and local levels but gave SEAs and LEAs flexibility to determine how best to meet those needs. Indeed, we have already described how program funds are used to support a wide range of allowable activities, molded to state and local reform efforts. Because its funds are used in a large variety of ways, the Eisenhower program is a "funding stream" more than a discrete program that supports very similar activities across states or districts.

The Eisenhower coordinators at our six case districts thought of Title II funds as a steady source, one among many, they could use to support professional development activities that support achievement of district or state priorities. The program's flexibility allowed it to play different roles in relationship to other reform efforts in the six case districts. From the perspective of district Eisenhower coordinators, this flexibility was one of the great strengths of the Eisenhower program.[17]

[17] According to federal program officials, however, some state and local EPDP coordinators viewed the 1994 reauthorization as imposing more requirements than its predecessor program, the Eisenhower Mathematics and Science Program.

In all of the case districts, Eisenhower funds were pooled with funds from other sources to co-fund activities that achieved the districts' professional development objectives. More important than the pooling of funds, however, may have been the ways in which some districts used Eisenhower funds to leverage other funds. In two of the six case districts, administrators viewed the Eisenhower program as a means of leveraging other funds to support a comprehensive reform effort. The following vignette illustrates how one district strategically used its Eisenhower funds to maximize the resources it had available to support the district's agenda for mathematics and science education.

> In West City, the Eisenhower coordinator, whose overall responsibilities included curriculum development and professional development in mathematics and who happened to be responsible for administering Eisenhower funds as well, planned her budget each year starting with the district's Eisenhower funds. She knew that these funds were available every year, and she knew approximately how much would be available annually through the program. She then looked at the goals the district had set for the mathematics and science curriculum and professional development for the year and determined how Eisenhower funds could be applied most effectively across planned activities. She made this determination based, first, on allowable uses of Eisenhower funds and, second, on those types of expenses she could most easily convince other potential funding sources were worthwhile investments. She then prepared grant proposals to foundations and private industry, showing how district funds, including Eisenhower funds, would support particular pieces of a reform effort and how additional funds from the external funding source would be used to further the reform. She said that this approach had been very successful in leveraging funds from outside the district.
>
> Taking her leveraging efforts one step further, the Eisenhower coordinator has solicited the participation of nearby colleges and universities in the district's professional development program. She has approached professors of mathematics, science, and education at different institutions, asking them to apply for Eisenhower grants through the State Agency for Higher Education. Professional development projects funded through these grants, proactively sought and designed by the district in collaboration with IHE-based educators, provided integral components of the district's mathematics and science professional development.

Though other districts did not use Eisenhower funds as extensively as did West City to leverage other funds, they clearly relied on the Eisenhower funds just the same. The district Eisenhower coordinator in Northtown (which received about $20,000 annually from the Eisenhower program) also said she began her annual planning for mathematics and science professional development by building upon Eisenhower funds. South City was able to use its Eisenhower funds as a basis of local support in order to obtain its $5 million (annual) USI grant. The district was able to draw on the two programs to support its professional development activities in mathematics and science.

It is clear that the reliability of funding for professional development available through the Eisenhower program was considered a very valuable asset in school districts. Because they could rely on those funds, district administrators were able to plan more strategically than they might have been able to do otherwise.

Emerging Theme #6: **There was little direct connection between the Eisenhower program and Title I, Part A, although in one district de facto coordination existed among professional development activities funded by the two programs.**

While the six case study districts appeared to coordinate the Eisenhower program with state and local programs and reform efforts, as well as with NSF-funded systemic initiatives, the six districts did not appear to connect the Eisenhower program with other federal programs, such as Title I, Part A.

The law is clear about ways in which Title II activities should address the needs of teachers in Title I schools. Specifically, the law states that LEAs must conduct needs assessments that "shall be carried out with the involvement of teachers, including teachers in schools receiving assistance under part A of title I "(Section 2208(b)(2)). It then goes on to state that LEAs must submit plans for the Eisenhower program that "describe how the program funded under this part will be coordinated, as appropriate, with…resources provided under part A of title I and other provisions of this Act" (Sections 2208(d)(1)(H) and 2208(d)(1)(H)(iii)). Because these requirements are more specific than those linking EPDP with other programs, one could expect collaboration between Title I- and Title II-funded activities. Yet, in the six case districts, we found little evidence of direct coordination between Title I- and Title II-funded activities. In several districts, Eisenhower and Title I coordinators said they did not work closely with each other, and they had not increased their collaboration since the 1994 changes to the program. Furthermore, Eisenhower coordinators said that they made no special efforts to include teachers in schools that receive assistance under Title I in the planning of Eisenhower-supported professional development activities. Unlike their relationships with NSF-funded systemic initiatives, Title II coordinators did not co-fund or plan their Title II professional development activities with Title I-funded activities. To the extent that the districts' Title I programs provided professional development to Title I teachers and teachers in schools with schoolwide Title I projects, the Eisenhower program coordinator was not involved with the Title I program coordinator in developing or delivering this professional development. One district's Eisenhower coordinator asserted to us that the law *suggests*, but does not *require*, collaboration.

While we found no evidence of direct connection between Title I and Title II professional development activities, we did find some evidence of de facto coordination. In one district, both sources of federal funds were managed by the district's Division of Curriculum Development and Professional Development. That division, which also housed the Eisenhower program, received $300,000 from Title I to conduct all of its professional development activities. Those funds were used only for schools identified by the district as low performing; the funds generally supported professional development in mathematics and language arts. While the Title I and Title II programs were not directly coordinated in this district, they were coordinated de facto — the district's overarching approach to and philosophy of professional development framed the use of funds from both programs.

Summary and Issues Raised

If the encouraging pattern of coordination between the Eisenhower program and other reform efforts in the six case districts holds up in subsequent phases of this evaluation, it will demonstrate that the Eisenhower program is not merely an "add-on" program, but an important facilitator of systemic reform. We will continue to identify the conditions under which the program plays such a role in our future work on this evaluation.

At the same time, the current lack of coordination between the Eisenhower program and Title I, Part A, as observed in five of the six case sites, may be cause for concern, especially in light of the legislation's intent that the two programs work together to improve the educational experiences of the nation's most disadvantaged students. Such lack of coordination may be attributed to several root causes. First, the requirement from the federal government that the two programs be aligned is fairly recent, and it is addressed to two programs that are already well established in districts and yet typically have been separate from each other. Second, those implementing the Eisenhower program emphasize mathematics and science education, while Title I administrators often emphasize language arts; although it often supports compensatory education in mathematics as well, Title I's primary focus has traditionally been on reading. Third, those who run the Title I program may be unaccustomed to coordinating with the Eisenhower program, and vice versa. Given these circumstances, it is reasonable to think that the requirement that the Title II program be coordinated with Title I (and with other federal education programs) has simply not yet had enough time to take hold at the district level. As we expand the evaluation to collect more in-depth case study data from states and districts, as well as nationally representative data, we will look to see if the lack of coordination holds and if other findings serve to explain it. We also will explore more fully EPDP's relationship to other programs, such as those funded by IDEA.

IV. The Participation of Teachers Of Diverse Student Populations

If systemic reform is to achieve its promise, it must reach all students. All students, including those who historically have not had access to high-quality educational opportunities, or who have had greater difficulty succeeding in school, must receive a high-quality education and must be expected to achieve to high standards. The Title II program is one among many federal, state, and local efforts that aim to improve educational opportunities for all students.

Several Title II provisions emphasize that the Eisenhower program-funded activities for teachers should ultimately benefit students from diverse backgrounds. One of the law's purposes is to incorporate "effective strategies, techniques, methods, and practices for meeting the educational needs of diverse student populations, including females, minorities, individuals with disabilities, limited English proficient individuals, and economically disadvantaged individuals, in order to ensure that all students have the opportunity to achieve challenging State student performance standards" (Section 2002(1)(D)). The law contains a number of provisions that encourage paying particular attention to teachers of diverse student populations. The local plan for professional development must describe how local professional development activities meet the needs of these students. Furthermore, the law specifically cites as allowable uses of Title II funds

> professional development to enable teachers...to ensure that girls and young women, minorities, and limited-English-proficient students, individuals with disabilities, and the economically disadvantaged have full opportunity to achieve the challenging State content standards and challenging State student performance standards in the core academic subjects (Section 2210(b)(3)(G)).

Because Title I, Part A is the largest and most prominent federal program to serve economically disadvantaged students, Title II contains a number of provisions requiring that funds be used to address the needs of teachers in schools receiving Title I funds. For example, the legislation requires that state applications for federal funds include, as part of the state's overall plan to improve teaching and learning, a description of

> how the State will work with teachers, including teachers in schools receiving assistance under Part A of Title I,...to ensure that such individuals develop the capacity to support sustained, intensive, high-quality professional development programs in the core academic subjects (Section 2205(b)(2)(G)).

Furthermore, local applications for Title II funds must include an assessment of the local needs for professional development and a local plan for professional development; both of these must be developed with the involvement of teachers, including those in schools

receiving Title I, Part A funds.[18] The plan itself must include a description of how Title II activities "will address the needs of teachers in schools receiving assistance under part A of Title I" (Section 2208(d)(1)(B)).

Thus, the law requires that Title II-funded activities meet the needs of teachers in Title I schools and encourages professional development of teachers who work with diverse student populations. Yet, we found that district administrators did not appear to make special efforts to involve teachers in Title I schools, or teachers of other diverse student populations, in Title II-funded activities.

> ***Emerging Theme #7:*** **The six case districts made Eisenhower-funded activities available to teachers of students from diverse populations on the same basis as such activities were made available to all teachers. No special targeting of professional development to particular groups of teachers took place in the six case districts.**

Despite the legislation's emphasis on improving the skills of teachers who work with diverse student populations, none of the six case districts had taken purposeful steps to ensure that such teachers participated in Eisenhower-supported professional development activities. Rather, most of the district coordinators spoke of marketing their programs to all teachers, thus providing broad access to professional development.

The Eisenhower coordinators in the case districts asserted that special targeting of any groups of teachers to receive Eisenhower-funded activities was not necessary. In some districts, officials felt that all teachers had equal access to program-funded activities, so special targeting was not necessary. Eisenhower coordinators in the three large, urban school districts, for example, asserted that teachers in high-poverty schools participated in similar numbers as their colleagues in lower-poverty schools. Another reason for lack of targeting of Middle City teachers in high-poverty schools was given by the Eisenhower coordinator who stated that all schools were "high-poverty" schools. Only six of this district's 150 schools did not qualify for Title I funding.

Although districts did not target EPDP-supported professional development to teachers based upon their students' backgrounds, the case districts did take some steps to target professional development in other ways. In some cases, experienced teachers were selected for training to assume teacher leadership roles, while other forms of targeting included programs for teachers new to a grade level, to a district, or to the use of a curriculum unit. For instance, Middle City mandated that professional development be available for all teachers entering the district, making a transition to a new grade level, or teaching out-of-field. In Northtown, lead mathematics and science teachers, who were no longer classroom teachers, targeted professional development toward teachers who did not "consume" materials designed to support the district's hands-on, kit-based curriculum as quickly as other teachers.

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[18] As described in the Introduction, this information does not have to be included in a consolidated application if the LEA submits one.

Emerging Theme #8: **Teachers came to participate in Eisenhower-supported activities in a variety of ways, including volunteering, being selected by their principals, and attending mandatory activities.**

Teacher involvement in selecting and designing professional development activities is one tenet of good professional development (American Federation of Teachers, n.d.; National Foundation for the Improvement of Education, 1996; Stiles, Loucks-Horsley, & Hewson, 1996). In all six case districts, the EPDP coordinators emphasized global, equitable access to professional development, rather than professional development targeted toward particular teachers. However, within this general approach, the ways in which teachers selected or were selected for professional development varied across districts. Some methods placed emphasis on teacher choice, while others placed emphasis on the needs of districts or schools.

Across the six case districts, we found at least three distinct selection processes:

- Teachers volunteered and either participated on a first-come, first-served basis or were selected by lottery;
- The principal or another school or district administrator selected teachers for participation; and
- Participation in the activity was mandatory.

In addition, we found cases where teachers took turns participating in professional development, and, in one district, we heard of a single activity for which teachers were hand-picked by the provider to participate. A number of different approaches to selecting teachers co-existed in some districts.

In the sections that follow, we describe some of the most salient features we found in these three ways by which teachers came to participate in Eisenhower-supported professional development.

Teachers volunteered. Many Title II-supported activities in the six case districts were attended by teacher volunteers. An advantage of the teacher-volunteer model is that teachers who participate in such activities are ready and willing to benefit from them. One clear disadvantage, however, is that professional development reaches some teachers, with others involved only when they need recertification units. In fact, where volunteerism was the model, administrators, teachers, and professional development providers alike reported that the same teachers participated again and again and that new faces were not often seen.

In case districts in which teachers' volunteering was the primary method of selection for EPDP-supported professional development, teacher interest clearly played an important role in determining who participated. Teachers' interest tended to be based upon two motives: (1) the desire to improve one's classroom skills and the performance of one's students; and (2) the desire to advance professionally up the career ladder, where promotion

criteria often are based on continuing education units (CEUs) acquired through professional development.

The teachers in our focus groups tended to be those who participated often in professional development activities. One teacher told a story of encouraging a colleague to attend a professional development activity, as the following vignette illustrates.

> Department chairs and teachers alike in Middle City complained that their less active colleagues rarely pursued professional development opportunities, particularly those outside of school hours. One teacher related that she finally persuaded a colleague to participate in a technology-based activity, by "filling out the forms for her, getting her organized, and offering to help." The teacher attended, somewhat reluctantly. By the end of the activity (approximately a semester), the teacher was hooked on professional development—not only because she had enjoyed the experience, but because she had a greater understanding of technology, and because her students had begun to like her science class. Without the prompting of a colleague, however, this teacher most likely would not have attended, or benefited from, professional development activities.

Some professional development providers and Eisenhower coordinators had begun to address this issue through the use of teams. For some professional development activities, teachers had to attend as part of a school-based team. Although teams varied in number and composition, this requirement enabled teachers more interested in professional development to exert peer pressure over their colleagues. Providers reported that this strategy was successful in building school-level capacity, as it tended to contribute towards a "critical mass" of trained teachers within a building who could support one another.

Principals or administrators selected teachers to participate. Many focus group participants stated that principals selected teachers to participate in professional development activities. Here, school priorities appeared to take precedence over individual teachers' needs. In one school, a teacher was supported through her graduate training, because the school needed a specialist in her area—and funding for her graduate training superseded all other special requests by other teachers for professional development.

According to teachers in the focus groups, principals or administrators sometimes selected the "wrong" teachers to attend professional development. For example, principals sometimes selected teachers who had attended either the same or similar professional development activity in the past and who, therefore, did not learn much from it; our focus group participants claimed that such teachers were selected to attend because the principal knew they could be counted on to go. According to some focus group participants, principals or administrators sometimes selected teachers for whom the professional development activity was not directly relevant; for example, an elementary art teacher, considered by the principal to be more "expendable" than other teachers and therefore a good candidate to be taken out of the classroom for professional development, attended a workshop on mathematics instruction in the primary grades. Therefore, though selection of teachers by principals or administrators can, under some circumstances, serve school priorities well, teachers themselves felt that this selection method can potentially be in conflict with their individual professional growth.

Mandated professional development. Where districts had district wide staff development days, or where schools held in-service activities, teachers were often, but not always, required to attend. In some districts, schools could select how they wanted to use their in-service days. For example, in Middle City, schools accrued a set number of "banking days" each year. Principals could decide how to use these days, and often used them for professional development.

The advantage of mandated professional development, of course, is that everybody receives it. A disadvantage, at least as observed in our six case districts, is that this type of professional development tends to be of shorter duration, and typically involves a narrower range of activities than do other forms of professional development. Clearly, there is a trade-off between breadth (the number of teachers reached) and depth (the intensity of their experiences) of scarce professional development resources.

Summary and Issues Raised

Information from our six exploratory case studies suggests that districts may not be making any additional efforts specifically to ensure that teachers of students from diverse populations participate in Eisenhower-funded activities. Policy makers will need to judge, based on subsequent nationally representative data, whether teachers of such students participate adequately in Title II-funded activities.

The ways in which teachers come to participate in Eisenhower-supported activities in the six case districts—volunteering based on their own interests and perceived needs, being selected by principals and other administrators, and participating in mandatory activities—may reveal a tension between two goals of the Eisenhower program. On the one hand, the authorizing legislation emphasizes that teachers should be involved in planning professional development, and the tenets of high-quality professional development emphasize a match between teachers' professional development needs and the activities they attend. On the other hand, the program emphasizes that professional development should be designed to achieve some school- and district-level goals. These two emphases may, at times, be in tension with each other. Teachers may identify for themselves professional development goals that reflect neither standards nor schoolwide needs. Conversely, school and district administrators may not consult with teachers sufficiently to be able to match teacher, school, and district needs for professional development. We will continue to investigate whether or not this tension exists as we move to the next phases of this evaluation.

V. Planning and Tracking Progress of the Eisenhower Program and the Role of Performance Indicators

The literature on professional development and federal requirements reflect the importance of accountability for the outcomes of professional development. These outcomes can be determined in a number of different ways. One way is to determine whether participants in professional development activities were engaged and satisfied, that is, whether the professional development met their individual needs. Another way is by evaluating the impact of professional development on teacher practice, that is, whether the professional development affects what teachers do in their classrooms. However the outcomes of professional development are measured, the key to accountability is how information about outcomes is used. Is such information about the results of professional development used to modify the professional development activities themselves?

In recent years, the federal government has shifted toward a "continuous improvement" paradigm for evaluating all federal programs, including those that fund professional development. GPRA requires a process of strategic planning that includes developing goals and objectives, describing how they would be achieved, and delineating how progress towards these goals would be evaluated. As part of this strategic planning, GPRA requires agencies to establish annual, quantifiable performance goals and to develop performance indicators to provide a basis for comparing program results against performance goals. Agencies also must describe ways they plan to verify and validate results.

A similar strategic planning process is called for in the Eisenhower program's legislative requirement that states and LEAs develop performance indicators for professional development:

> State plans shall "set specific performance indicators for professional development" (Section 2205(b)(2)(N)); and a local educational agency shall set specific performance indicators for improving teaching and learning through professional development (Section 2208(a)(2)).

The legislation also requires that, every three years, SEAs and LEAs report on progress toward their performance indicators, as well as on the effectiveness of Eisenhower-funded activities (Section 2401(a) and (b)).

Departmental guidance explains further the purpose of performance indicators, emphasizing how they are to be used to determine program effectiveness:

> The Eisenhower Program requires participating SEAs and LEAs to establish performance indicators at the outset of planning their program, and use them to assess the effectiveness of their program. For the purpose of the Eisenhower Program, these performance indicators are statistics and other information used both: (1) to establish baseline data on important aspects of a sustained and intensive, high quality professional development program; and (2) to demonstrate the progress of local and State professional development activities in meeting the goals and objectives identified in their

respective needs assessments and plans for professional development. (U.S. Department of Education, 1995, p.7)

ED's performance indicators for the Eisenhower program emphasize the integration of these indicators with those for professional development more generally in order to support systemic reform efforts. In other words, indicators are intended to support a planning and evaluation process for professional development generally, as well as for the Eisenhower program in particular. The indicators provide information to help districts in assessing their needs for professional development and evaluating the program's effectiveness. Ultimately, the goal of indicators is to provide information that supports a planning process that improves the program, as well as professional development as a whole.

Performance indicators, as delineated in the legislation, are supposed to guide planning and evaluation of the Eisenhower program. Another important clause of the authorizing legislation implies that planning for professional development should not just occur at the district level. Schools and teachers have a critical role to play in conjunction with district-level planning (Ginsburg, 1997). Congress recognized the value of planning by school-level staff in the Title II reauthorizing legislation, which states that LEAs:

> shall use not less than 80 percent of [Eisenhower grant] funds for professional development of teachers [and other school staff] of individual schools that (A) is determined by such teachers and staff; [and] (B) to the extent practicable, takes place at the individual school site (Section 2210(a)(1)).

The intent of this language seems to be that professional development needs should be identified by school-level staff and should be embedded in ongoing school activities. Involving teachers in planning and basing professional development at the school site are both considered important aspects of high-quality professional development (Little, 1993; Resnick, 1997).

Despite the emphasis placed on the development and use of performance indicators to help plan and evaluate professional development, we found that our six case districts had not yet developed such indicators. Furthermore, we also found that interpretations of the school-level planning requirement varied from district to district. We explore these themes further below.

> ***Emerging Theme #9:*** **The six case study districts had not established comprehensive, outcomes-based planning and evaluation processes grounded in performance indicators.**

In our visits to the six case districts, we found that all conducted some form of needs assessment to guide the planning of their Title II programs. In addition, they all engaged in at least a rudimentary evaluation of funded activities. However, most district Eisenhower coordinators were unaware of the reauthorization requirement that their districts develop performance indicators against which to evaluate the success of their programs. Only one of the Eisenhower coordinators in the six case districts actually knew of the requirement, and that coordinator had attended a statewide conference on the performance indicator requirements. At this conference, state staff introduced district staff to the federal guidelines

regarding indicators and instructed district staff to use the state's indicators for their Eisenhower program reporting. Other interviewed Eisenhower directors, however, were totally unaware of the requirement, and at least one said, "It sounds like a good idea."

Even without performance indicators as a guide, districts do conduct needs assessments. All six of the case districts engaged in some form of needs assessment to inform either their Eisenhower program or their professional development program as a whole. In some districts, student test scores were the most important source of data for the needs assessment, with more professional development determined to be required in areas in which children were performing poorly. In Middle City, formal surveys and interviews with teachers guided the direction of professional development. In other districts, the process employed to conduct the needs assessment was quite informal, consisting primarily of a conversation among the Eisenhower director, other district staff (such as subject area specialists), and, in some cases, a few teachers and principals.

The Eisenhower program directors in the six case districts also conducted evaluations of the activities funded by the program. Most admitted, however, that their evaluation efforts were rudimentary. All programs asked teachers to fill out an evaluation questionnaire at the end of each activity, commenting on how useful they found the substance of the activity and how effective they found the presenter or leader to be. They said that they used these evaluations to weed out poor professional development providers and activities that were not useful.

More extensive evaluation efforts were undertaken in just two of the districts. In Middle City, for example, evaluation methods regularly included pre- and post-activity teacher surveys, peer evaluation, classroom visits and observation, teacher portfolios, and videos of teachers using new techniques in their classrooms. This information was collected to meet the internal reporting requirements of the district and the coordinator's need for information as well. West City also employed an evaluation system which encompassed professional development. Schools in the district maintained portfolios to assess their performance on 17 indicators, both qualitative and quantitative. Professional development was one of the areas in which schools assessed their performance. Furthermore, the district's research and evaluation division had used surveys and classroom observations to evaluate professional development activities. The district Eisenhower coordinator indicated that these evaluations had not been entirely satisfactory, however, and the district's Curriculum and Professional Development Division was implementing more comprehensive evaluations of professional development with classroom observation protocols used by NSF Local Systemic Change initiatives.

While both Middle City and West City appeared to have more extensive approaches to evaluating professional development than did other districts, we were not able to determine, given the limited amount of time spent on site, how these evaluation activities were used to judge the effectiveness of individual activities or of the professional development program as a whole.

Individual Eisenhower-supported professional development activities were in some cases evaluated thoroughly and in others quite simplistically. Several of the Eisenhower program directors and other professional development administrators indicated a desire to conduct more extensive evaluations, but they said they did not have the time or the resources to do so. Additionally, more than one Eisenhower director noted that they were not required by the state to conduct any sort of evaluation of their activities or programs, despite the law's requirements.

> ***Emerging Theme #10:*** **Schools were involved in ongoing planning and evaluation efforts in some of the case districts. However, Eisenhower coordinators had difficulty interpreting the 1994 reauthorization requirement that Eisenhower-funded activities be determined by school-level staff.**

Planning and implementing professional development activities at the school level is certainly a feature of high-quality professional development. Our three large, urban districts required that professional development needs assessments be conducted at the school level (or, in South City, at the "feeder-pattern" level). In Middle City, annual school plans had to include needs assessments and link professional development requests to the needs assessment. In South City, a one-page needs assessment form was supplied to the feeder pattern to help identify needs for professional development in the upcoming year. This procedure was introduced to support South City's implementation of the reauthorization requirement that allocation of 80 percent of funds be determined at the school level.

In West City, schools had to maintain a "school portfolio" (described above), which required staff to think purposefully about professional development. In addition to involving school staff in planning, the West City portfolios involved schools in evaluating professional development. One section of the portfolio had to describe what the school did in the way of professional development and how professional development affected teachers and students.

Although some districts may have been moving toward involving school staff in planning (and, in one case, evaluating professional development activities), Eisenhower coordinators and other district administrators were uncertain about exactly how to interpret the EPDP provision that the use of 80 percent of EPDP funds be determined by school staff. Consequently, we found as many interpretations of this provision as we found sites:

- The Countryplace Eisenhower coordinator felt that his consortium met the requirements of this provision by polling all the teachers in the district and designing program-funded activities in response to the needs expressed by the teachers.

- South City abandoned its practice of providing teachers in the entire district a wide range of mathematics and science professional development activities and began offering a limited menu to each feeder pattern in the district; a committee of principals (representing the school sites) within the feeder pattern then selected those activities from which they felt teachers would most benefit.

- Another large district—Middle City—decided that its current program was in compliance with the provision; here, district teachers were heavily involved in planning professional development, but only a small proportion of professional development seemed to be actually planned and conducted at the school site.

The following vignette illustrates how one state's professional development mandates seemed to support the Eisenhower requirement.

> Countryplace, our consortium site, illustrates one way this provision can be interpreted. There, the state mandated teacher-run Professional Development Committees (PDCs) to ensure local oversight of in-service activities. Each year, the committees were advised of the available funds for professional development, including a state-mandated set-aside and the consortium's Eisenhower funds. Teachers applied to the PDCs, specifying the activity they would like to attend as well as their rationale for attending. Eisenhower funds were used only for mathematics and science activities. When teachers applied for Eisenhower-appropriate activities, and their application was approved by the PDC, the teacher application was forwarded to the consortium office, which handled the paperwork and maintained fiscal responsibility.

There are a number of reasons why the legislative provision was being interpreted so differently across sites. First, the provision that professional development be "determined" by school-level staff is quite general and, thus, can take many forms. School staff can be involved in setting the agenda for professional development; in planning professional development activities; in allocating professional development resources among teachers (as in the above vignette); and certainly in selecting some, if not all, of the professional development activities in which they will participate.

Furthermore, the law expressly allows different configurations of school staff to be involved, with potentially different consequences for the types of professional development activities that are designed or provided. Finally, while the new provision requires that school staff be involved in planning professional development, this planning does not necessarily *have* to occur at the school site. For all of these reasons, this provision is open to multiple interpretations. Eisenhower coordinators expressed confusion about the basic intent of the provision.

In this context, we found that the requirement to have school staff make decisions about professional development did not always result in teachers having greater discretion over the types of professional development they received. There may be some trade-offs between individual teacher choice and school choice of professional development. If, for example, district-level planning means that individual teachers choose from a menu of options, while school staff involvement means that principals decide on types of professional development available (and who attends), school-based professional development may mean less choice for individual teachers. One Eisenhower coordinator lamented this change in the law, suggesting that it sacrificed individual growth for school control. She said, in her opinion, there should be more of a "balance between the two."

Summary and Issues Raised

This initial examination raises a number of issues that will be explored in upcoming reports. The mandate that states and LEAs develop performance indicators for professional development that would guide the planning and evaluation of Eisenhower programs had not yet made itself felt at the local level in the six districts studied. Whether states have failed to emphasize this new requirement to their school districts (for instance, because states determined that other program requirements were more worthy of their early attention) remains an open question. We do not yet have sufficient information to determine whether technical assistance for state or district Eisenhower coordinators would be a promising avenue for providing more information about developing indicators and using them well in planning and evaluating the program. As this evaluation continues, and as states and LEAs have more time to familiarize themselves with the concept and mechanics of performance indicators, we may find more evidence of positive impact.

Based upon findings from these six exploratory case studies, future reports will explore another issue—whether the required components of the process used to plan, monitor, and evaluate Eisenhower-funded activities combine to form a coherent approach that districts and schools can use to improve the program. While the law clearly lays out several components of an improvement process (developing a district plan, conducting needs assessments, having the expenditure of funds be largely determined with the involvement of school-level staff, developing performance indicators, and reporting on the effectiveness of Eisenhower-funded activities), these elements are sprinkled throughout the law. They may not be presented in a manner that sends a clear signal about how states and districts can use their Eisenhower funds to obtain maximum impact for teaching practice. Given the new demands of the IASA, whether program administrators would benefit from more or better technical assistance in their planning and tracking progress of the Eisenhower program is a question that we will explore in upcoming reports.

VI. Conclusions and Implications for Subsequent Phases of this Evaluation

The Eisenhower Professional Development Program is an important federal program, serving as a key piece of the nation's strategy to improve teacher practice and bring the nation's children to higher levels of performance. In our six exploratory case studies, the districts appear to implement the program so that it complements and supports districts' larger professional development and reform efforts, funding a variety of activities and supporting the implementation of challenging state and local standards and other education reforms. However, we still have a lot left to learn about how the program operates across the nation, the types of activities it funds, and, more importantly, the effect of the program on teacher practice.

These six cases comprised the start of our evaluation of this program, and they have served to launch our efforts to understand the operation of the program and its impact. Our efforts over the next two years will build upon the insights gleaned in this initial phase, using nationally representative data from district Eisenhower coordinators, IHE project directors, and teachers, as well as in-depth case studies in 10 school districts in five states. We also will push further to examine teacher professional development experiences and their effects upon practice.

Issues Raised by the Six Case Studies

The most recent reauthorization of the Eisenhower program instituted a broad range of changes intended to support school reform efforts linked to high standards. New provisions were aimed at ensuring that program funds were used to support high-quality professional development activities determined largely by teachers and other school-level staff; that Eisenhower-supported activities were integrated with other federal, state, and local school reform efforts and federal programs for disadvantaged students; that teachers who work with historically underrepresented populations of students participate in the program; and that the program be purposefully planned and evaluated at all levels of government.

Our exploratory cases suggest an incomplete and uneven picture in six districts; activities and practices in the six case districts appeared to be more consistent with some new directions in the law than with others. The remainder of this evaluation will serve to paint a nationally representative and more in-depth picture by addressing the following questions.

Do Eisenhower-supported activities reflect what is known about high-quality professional development? Our six exploratory cases indicated that district officials were aware of some key elements of high-quality professional development, including the importance of aligning professional development with high standards. They also appear to be moving toward funding more activities that fit current conceptions of high quality. However, reports from district administrators and from teachers and professional development providers in the focus groups raised a number of questions that we will be able to address in future reports:

- *What proportion of districts' professional development activities appear to be high quality?* While administrators in the six districts appeared to understand some aspects of high-quality professional development, it is not clear whether the large number and variety of activities funded by the program nationwide fit this pattern or instead remain predominantly in the model of short-term, one-shot workshops.

- *How do administrators balance the need for moving towards sustained and intensive professional development with demands that all teachers should participate in professional development?*

- *How do teachers experience their Eisenhower-funded professional development? What proportion of activities do teachers describe as high quality? How do teacher descriptions of activities compare with those of administrators and providers?*

- *Will we continue to find evidence that Eisenhower-supported professional development activities are aligned with state and district standards? On further examination, will this alignment prove to be superficial, or will activities truly reflect high standards?*

In addition, because future phases of the evaluation will examine the IHE component of the EPDP more thoroughly, we will be able to describe professional development activities sponsored by IHE Eisenhower grant recipients and compare them to those sponsored by school districts.

How well are Eisenhower activities integrated with ongoing education reform efforts? Our preliminary cases indicate that the program's flexibility allows the program to support reform efforts in a variety of different ways depending on which other programs exist in the district and other local conditions. Our future data collection efforts will enable us to address additional questions:

- *To what extent is the Eisenhower program a leader in school reform efforts?* Clearly, the legislation envisions the EPDP as a stimulus and support for school reform as well as a support for other school reform initiatives. In-depth case studies will enable us to examine in greater detail the conditions under which the program has been a force for improving professional development and promoting high standards and under what conditions the program plays a less vital role.

- *Under what conditions are Eisenhower funds used to provide professional development in core subjects other than mathematics and science?* What has been the experience in states and districts that have received waivers from the requirement that funds be spent on mathematics and science?

- *To what extent and under what conditions are Eisenhower activities integrated with Title I?* We will determine whether the initial observation in six districts that there is minimal connection between the EPDP and Title I holds true in a nationally representative sample of school districts.

How well do districts ensure that teachers of students from diverse populations receive professional development activities funded by the program? Our six case studies indicate that districts may not target Eisenhower activities on teachers of students from high-poverty schools or from historically underrepresented populations. Future phases of the evaluation will address the question:

- *Are there examples of districts that have used Eisenhower funds to place special emphasis on such teachers? What is the value of these efforts, and what can we learn from them?*

How well do Eisenhower programs engage in purposeful planning, ongoing evaluation of program effects, and development of performance indicators? In our six case studies most Eisenhower program administrators were unaware of the requirement that they develop performance indicators. In addition, most of these districts did not evaluate the effect of the program activities on teacher practice. We will examine the following questions:

- *To what extent are the nation's Eisenhower administrators unaware of the requirements to develop performance indicators and to conduct outcome-based planning and evaluation?*

- *Are there some examples of districts that have used indicators and evaluations well to improve their Eisenhower programs?*

- *Will the requirement that Eisenhower-funded activities be determined by teachers at the school level (where possible) continue to be confusing to district administrators?* We will examine in greater depth whether this provision is being clearly communicated and interpreted by state officials, and what other factors might contribute to the varied interpretations of this provision, such as possible inconsistencies with other state policies and practices.

- *Has the option to move to consolidated planning with other programs helped local Eisenhower programs work well with other programs?*

- *Have districts received sufficient technical assistance so that they can establish meaningful indicators and assess their progress toward the goals that they have established?*

Teacher Professional Development and Effects on Practice: The Missing Piece

This conclusion to our report has reviewed a range of questions that our preliminary case studies have stimulated. However, the ultimate test of any social program, is: *Did the program make a difference*? For the Eisenhower program, the ultimate questions are: *Do the types of activities funded by the program change teacher practice? Do teachers who participate in professional development activities of the types funded by the program obtain*

deeper knowledge of complex and difficult content areas? After participating in professional development activities, do teachers teach in ways that are more likely to improve students' learning?

Our six cases were not designed to address such questions, but the rest of our evaluation is. We have designed a study that will examine in depth whether teachers are teaching high-level content in ways that demand cognitive growth from their students, and, more importantly, whether the types of professional development teachers receive change their classroom practices over time. This aspect of our study will be a major contribution to knowledge about the effects of professional development in general, and the impact of the Eisenhower Professional Development Program in particular. Reports that we will deliver to the Education Department in the Fall of 1998 and in the Fall of 1999 will provide a wealth of information about the activities funded by the Eisenhower program, how the program operates, and, most importantly, the effects of professional development on what teachers actually *do* in their classrooms.

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APPENDIX A

Eisenhower Program Performance Indicators

Indicators Submitted to Congress with the ED Annual Plan:

The evaluation will provide data for the following objectives and performance indicators for the Eisenhower Professional Development Program.

Objective 1: Classroom instruction is improved through effective professional development.

1.1 *Teachers' skills and classroom instruction.* By 1998, over 50 percent of a sample of teachers will show evidence that participation in Eisenhower-assisted professional development has resulted in an improvement in their knowledge and skills, and by 1999 in an improvement in classroom instruction.

Objective 2: High-quality professional development and state policy are aligned with high state content and student performance standards.

2.1 *District-level and higher education professional development.* By 1998, over 50 percent of teachers participating in district-level and/or higher education Eisenhower-assisted professional development will participate in activities that are aligned with high standards. By 2000, over 75 percent.

Objective 3: Professional development is sustained, intensive, and high-quality and has a lasting impact on classroom instruction.

3.1 *High quality.* By 1998, over 50 percent of teachers participating in district-level, Eisenhower-assisted professional development activities will participate in activities reflecting the best practices, including a focus on continuous improvement. By 2000, over 75 percent.

3.2 *Intensity.* By 1998, 35 percent of teachers participating in district-level Eisenhower-assisted activities will participate in activities that are a component of professional development that extends over the school year; by 2000, over 50 percent.

Objective 4: High-quality professional development is provided to teachers who work with disadvantaged populations.

4.1 *High-poverty schools.* The proportion of teachers participating in Eisenhower-assisted activities who teach in high-poverty schools will exceed the proportion of the national teacher pool who teach in high-poverty schools.

In addition to the indicators listed above, ED also will be tracking the following program performance indicators for which the evaluation will provide data.

Underrepresented populations. The proportion of teachers participating in Eisenhower-assisted activities who are from historically underrepresented populations will exceed the proportion of the national teacher pool from historically underrepresented populations.

Integrated local planning and collaboration. By 1998, 35 percent of all districts will have developed performance indicators for integrated professional development across programs to support systemic reform and will have data collection systems in place; by 2000, 75 percent.

APPENDIX B

Overview of the Evaluation of the Eisenhower Professional Development Program

To provide valid data on the Eisenhower program's features, the central policy issues of concern to Congress and ED, and the research questions that flow from them, we plan to use a multiple-method strategy to collect quantitative and qualitative data from a variety of sources — state and district officials, school principals and teachers, and providers of professional development activities. For those reasons, the study involves three key strands of data collection.

The first strand, a *National Profile*, will provide information about program goals, strategies, operations, and activities nationwide. We will collect data from a nationally representative sample of school districts and institutions of higher education (IHEs) receiving program support, as well as from teachers who participated in EPDP activities. These data will both describe the types of professional development that the EPDP supports and compare EPDP activities sponsored by school districts and higher education.

The second strand, a set of *In-Depth Case Studies*, will provide detailed information on how the EPDP operates in selected states, school districts, and schools. Through the In-Depth Case Studies, we will explore (in much greater detail than is possible in the National Profile) how decisions are made about the use of EPDP funds, and the reasons that the EPDP goals, operations, and activities vary across states and districts. The case studies also will be a critical source of information about how the EPDP is related to other professional development and education reform efforts and the degree of coherence and consistency of these efforts.

The third strand, a *Longitudinal Study of Teacher Change*, will examine the effects of the EPDP and other professional development on teacher practice in mathematics and science. By interviewing and observing teachers in our case-study schools, and by surveying all teachers who teach mathematics or science in those schools over the three years of the study, we will be able to examine the extent to which teachers' participation in EPDP and other professional development activities improves instruction. Interviews with professional development providers and observations of professional development activities, themselves, will provided a rich source of information about the activities supported by the EPDP and their role in teacher learning. Our focus on mathematics and science instruction in this phase of the study will enable us to collect valid data about classroom teaching practice, while minimizing the burden on respondents.

The three components of the study are designed to fit together in order to produce an integrated portrait of the program that will address critical policy issues, as well as to report on the Eisenhower Performance Indicators. Exhibit B-1 provides additional detail on the three components of the evaluation.

EXHIBIT B-1

National Evaluation of the Eisenhower Professional Development Program: Main Data Collection Activities

Exploratory Case Studies

Data Collection Activity	Schedule	Sample
Conduct *focus groups of* teacher-participants and professional development providers in each exploratory case district	Year 1: April/May 1997	Exploratory cases conducted in 6 purposively selected districts. Each focus group will include about 10 participants, chosen to reflect range of variation in district.
Conduct *interviews* with district-level staff in each exploratory case district	Year 1: April/May 1997	5 interviews in each of the 6 exploratory case districts (superintendent, Eisenhower, professional development, math and science coordinators)

National Profile

Data Collection Activity	Schedule	Sample
Review *state-level documents* in ED program office	Year 1: February/July 1997 Year 2: February/March 1998 Year 3: February/March 1999	Documents for SEA and SAHE programs for all 50 states and the District of Columbia
Collect *LEA and IHE plans and reports* from a sample of programs	Year 2: February/March 1998 Year 3: February/March 1999	Stratified random sample of 400 LEA and 100 IHE programs
Conduct national telephone *interviews with program coordinators*	Year 2: February/March 1998 Year 3: February/March 1999	Stratified random sample of 400 LEA and 100 IHE programs
Conduct *mail survey of teachers* in a national sample of Eisenhower-supported activities	Year 2: March/April 1998	Sample of 2 teachers attending each of 2 activities per district/IHE in national sample (2,000 teachers overall)

EXHIBIT B-1, *continued*

National Evaluation of the Eisenhower Professional Development Program: Main Data Collection Activities

In-depth Case Studies

Data Collection Activity	Schedule	Sample
Review *state and district documents* (e.g., curriculum standards, assessments) for each case state	Year 1: January through March 1998 Year 2: January through March 1999	Documents for 5 case states and 10 case districts chosen to reflect variation in size and reform context.
Conduct *interviews with state-level staff* in each state	Year 1: January through March 1998 Year 2: January through March 1999	About 6 interviews in each of the 5 case states" (Eisenhower SEA and SAHE coordinators; professional development, curriculum, Title I, and evaluation coordinators). Total: 30.
Conduct *interviews with district-level staff* in each case district	Year 1: January through March 1998 Year 2: January through March 1999	About 4 or 5 interviews in each of the 10 case districts* (district Eisenhower coordinator; IHE coordinator, if an IHE program operates in district; professional development, curriculum, and Title I coordinator). Total: 43.

EXHIBIT B-1, *continued*

National Evaluation of the Eisenhower Professional Development Program: Main Data Collection Activities

In-depth Case Studies *continued*

Data Collection Activity	Schedule	Sample
Conduct *interview with principal and teacher focus group* in each case school	Year 1: January through March 1998 Year 2: January through March 1999	In year 1, interview principal (and math and science department chair) and conduct teacher focus group in each of 30 case schools (principal and 6 teachers per school for 10 elementary schools; principal, math and science chairs, and three math and three science teachers per school for 10 middle and 10 high schools). Year 1 total: 250. In year 2, interviews in each case school (principal). Year 2 total: 30.
Compile existing *student achievement data* for each case school and district	Year 1: January through March 1998 Year 2: January through March 1999 Year 3: October 1999	Obtain materials for all 10 case districts and 30 case schools

*Numbers may vary slightly due to job configurations in states and districts. About 5 interviews will be conducted in districts with IHE program, 4 interviews in remaining districts.

EXHIBIT B-1, *continued*

National Evaluation of the Eisenhower Professional Development Program: Main Data Collection Activities

Longitudinal Study of Teacher Change

Data Collection Activity	Schedule	Sample
Conduct *mail survey of teachers* who teach mathematics or science in in-depth case schools	Year 1: November/December 1997 Year 2: April 1998 Year 3: April 1999	All regular classroom teachers in 10 case elementary schools and all mathematics or science teachers in departmentalized secondary schools. Anticipated total: 720
Conduct *classroom observations of teachers*	Year 1: January 1998 Year 2: January 1999	In year 1, 2 teachers per case school In year 2, 2 teachers per case school
Conduct *observations of professional development activities* attended by sample of teachers in case schools	Year 1/Year 2: January 1998 through December 1998	Sample of 10 activities, chosen to represent important types of interventions (e.g., teacher collaboratives and reflective practice groups, intensive workshops). Up to 4 days on site for each activity
Conduct *interviews with professional development providers* who have led activities undertaken by sample of teachers in case schools	Year 1/Year 2: January 1998 through December 1998	Sample of 60 Activities, chosen to represent range of variation (e.g., short one-time awareness workshops, intensive short-term workshops, long-term workshops). In some cases (for example, reflective practice groups) the "provider" may be a teacher-participant

APPENDIX C

Selection Criteria for Sites and Focus Group Participants

Criteria for Selection of Districts

Selection of the six case districts took into consideration both demographic and programmatic variables. We wanted to obtain variation in the following demographic characteristics:

- ***Geographical region*** — In order to observe any regional impacts on education (particularly regarding types of reforms being implemented), we wanted districts located in different regions of the country.

- ***District poverty level*** — Because of the legislation's emphasis on coordination of Title II with Title I and on providing professional development to help teachers who work with children from diverse backgrounds, we wanted to include districts with high levels of children who live in poverty.

- ***District racial and ethnic composition*** — Again, because of the legislation's emphasis on serving teachers who work with children from historically underrepresented populations, we wanted to include districts with relatively high percentages of children from racial and ethnic minority populations.

- ***Urbanicity*** — We wanted the group of districts to include urban, rural, and suburban districts so that we could be sensitive to economic issues, as well as other resource issues (e.g., rural schools often can neither afford their own equipment, nor share resources because of the distances between schools).

We wanted selected districts to vary in the following programmatic characteristics:

- ***Participation in a consortium*** — School districts that receive less than $10,000 in Eisenhower funds are required to form consortia with other such districts. We wanted at least one of the six districts to participate in the EPDP as a member of a consortium.

- ***Collaboration with an Eisenhower-supported IHE project*** — Sixteen percent of Title II funds are directed to the State Agency for Higher Education, which awards most of those funds to institutions of higher education (IHEs) and other non-profit organizations that provide professional development to teachers. IHE Eisenhower-supported projects must work with one or more school districts. We wanted the sample to include at least two districts that worked with one or more IHEs that received grants through the SAHE-operated portion of the EPDP.

- ***Waivers*** — States and districts may apply to ED for waivers from particular Title II requirements, including waivers that allow a greater proportion of Eisenhower funds to be used to support professional development in subject areas outside mathematics and science. We wanted the sample to include at least two districts located in states that had obtained waivers.

- ***Other reform efforts*** — Because the Eisenhower program's authorizing legislation is clear that the program should support other state and local reform efforts, most particularly the achievement of high content and student performance standards, we wanted the sample of districts to vary in terms of the extent and characteristics of reform efforts operating in sites, whether at the state or local level.

Criteria for Selection of Teachers and Providers for Focus Groups

We relied upon the districts' Eisenhower coordinators for the selection of teachers and professional development providers to participate in the focus groups. We provided them with criteria to guide their selection of teachers and providers. Criteria for selecting teachers included:

- Each teacher should have attended an Eisenhower-supported professional development activity within the past year;

- Teachers in the focus group should have attended different activities, to represent a range of the district's professional development efforts;

- The group of selected teachers should represent all relevant levels of teaching (i.e., in a district that used Eisenhower funds to support professional development for elementary, middle, and high school teachers, all should be represented, whereas in a district that used Eisenhower funds only for elementary school teachers' professional development, only elementary school teachers would be included);

- The group of selected teachers should include both mathematics and science teachers (again, assuming the district used its Eisenhower funds to support professional development in both areas);

- The group of selected teachers should include teachers from high-poverty schools (defined as schools in which over 50 percent of students qualified for a free or reduced-price lunch); and

- The group of selected teachers should reflect the racial and ethnic profile of the district's teachers.

In the case of the provider focus group, we provided the district Eisenhower coordinator with the following criteria:

- Each provider should have provided an Eisenhower-supported professional development activity within the past two years; and

- The group of providers should reflect the range in the types of activities the district supported with Eisenhower funds.